

DOCUMENTED RELEASE SAMPLING REPORT

FOR

**SECTION 12 URANIUM MINE
GRANTS LEGACY URANIUM SITES
GRANTS, MCKINLEY COUNTY, NEW MEXICO**

Prepared for

U.S. Environmental Protection Agency Region 6

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Contract No. EP-W-06-042

Technical Direction Document TO-0035-11-09-02

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EXECUTIVE SUMMARY

The U.S. Environmental Protection Agency (EPA) tasked Weston Solutions, Inc. (WESTON), the EPA Region 6 Superfund Technical Assessment and Response Team (START-3) contractor, to conduct Documented Release Sampling (DRS) at the Section 12 Uranium Mine located near Ambrosia Lake, McKinley County, New Mexico.

The Section 12 Uranium Mine was identified as a potential hazardous waste site and entered into the Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) under CERCLIS No. NMN000607185. According to the New Mexico Environment Department (NMED) Ground Water Quality Bureau Pre-CERCLIS Screening Assessment of Section 12 Mine dated 08 October 2010, the last documented site reconnaissance was performed on 29 July 2010 by NMED, the New Mexico Energy, Minerals, and Natural Resources Department (NMEMNRD), Mr. George Lotspeich (current mineral rights permittee), and representatives from MMD and Neutron Energy, Inc. (Reference 1). During this site reconnaissance performed on 29 July 2010, radiological readings recorded at Section 12 Uranium Mine ranged from 7,000 to 100,000 counts per minute (cpm). On 23 August 2011, the EPA conducted an Airborne Spectral Photometric Environmental Collection Technology (ASPECT) overflight of the Ambrosia Lake area and collected gamma radiological measurements for exposure rate, total count rate, and elemental uranium. Results from the ASPECT overflight indicated elevated radiation exposure rates, uranium concentrations, and gamma radiation activity (total count rate).

START-3 conducted DRS at the Section 12 Mine Site between 07 and 09 November 2011 that included collecting surface gamma radiation measurements in addition to conducting sampling and performing chemical/radiological analyses of surface soil and water. The specific sampling objectives for the DRS were to collect data that could be used to document a potential release of hazardous substances to the environment and to potentially warrant further site investigation and/or reclamation. Based on the results of the DRS sampling event, soil and potential water contamination attributable to the Section 12 Uranium Mine was documented via these contributing factors:

- Forty out of the 75 stationary 1-minute gamma measurement locations had readings higher than two times the mean background average reading of 17,343 counts per minute (cpm), indicating a documented release.
- Ra-226 soil sampling results from the Section 12 Uranium Mine ranged from 13.1 to 241 picocuries per gram (pCi/g). All ten sample results exceeded three times the background Ra-226 result average of 2.18 pCi/g for the mine. This indicates a documented release at the Section 12 Uranium Mine.
- The current EPA drinking water standard for gross alpha activity is 15 picocuries per liter (pCi/l). The gross alpha water sample result from Ambrosia Lake at the Section 12 Uranium Mine is 71.2 pCi/l, though the detected concentration of Ra-226 cannot be directly linked to the Section 12 Uranium Mine or any other mine in the area.
- The current EPA drinking water standard for combined Ra-226/228 is 5 pCi/l. The surface Ra-226 result from Ambrosia Lake at the Section 12 Uranium Mine is 5.91 pCi/l, though the detected concentration of Ra-226 cannot be directly linked to the Section 12 Uranium Mine or any other mine in the area.
- Cadmium, copper, lead, mercury, selenium, total uranium, vanadium, and zinc were detected in soil samples that exceeded three times background concentrations, indicating a documented release at the Section 12 Uranium Mine.

START-3 has prepared this Documented Release Sampling Report to describe the technical scope of work that was completed as part of the Technical Direction Document (TDD) No. TO-0035-11-09-02 under Contract No. EP-W-06-042 for EPA Region 6. The EPA Site Assessment Manager (SAM) was Lisa Price, and the START-3 Project Team Leader (PTL) was Patrick Buster.

The EPA Task Monitor did not provide final approval of this report prior to the completion date of the work assignment. Therefore, Weston Solutions, Inc. has submitted this report absent the Task Monitor's approval.

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TABLE OF CONTENTS

Section	Page
EXECUTIVE SUMMARY	ES-1
1. INTRODUCTION	1-1
1.1 SITE BACKGROUND	1-1
1.2 OBJECTIVES OF THE INVESTIGATION	1-2
1.3 SCOPE OF WORK.....	1-2
1.4 REPORT FORMAT.....	1-3
2. SITE CHARACTERISTICS	2-1
2.1 SITE LOCATION AND DESCRIPTION	2-1
2.2 SITE HISTORY	2-1
3. DOCUMENTED RELEASE SAMPLING.....	3-1
3.1 OVERVIEW	3-1
3.2 FIELD OBSERVATIONS.....	3-2
3.3 BACKGROUND DETERMINATION	3-2
3.4 GAMMA SCANNING	3-3
3.5 STATIONARY GAMMA MEASUREMENTS.....	3-3
3.6 SOIL AND WATER SAMPLING	3-4
3.7 DEVIATIONS FROM THE QASP	3-5
4. SUMMARY	4-1
5. REFERENCES	5-2

LIST OF APPENDICES

Appendix	Title
A	Digital Photographs
B	START-3 Site Logbook
C	START-3 Quality Assurance Sampling Plan
D	Laboratory Data Packages
E	Laboratory Data Validation Packages
F	Reference Documentation
G	TDD No. TO-0035-11-09-02 and Amendments A-B

LIST OF FIGURES*

Figure	Title
Figure 1-1	Site Location Map
Figure 1-2	Exposure Rate Map EPA ASPECT Overflight
Figure 3-1	Assessment Area Map
Figure 3-2	Stationary Readings Map

***All figures are provided as separate portable document format (PDF) files.**

LIST OF TABLES*

Table

Table 3-1 Site Gamma Radiation Distribution

Table 3-2 Stationary Gamma Measurements Summary

Table 3-3 Laboratory Results for Radioisotopes

Table 3-4 Laboratory Results for Metals

***All tables are provided as separate portable document format (PDF) files.**

1. INTRODUCTION

WESTON, the EPA Region 6 START-3 Contractor, was tasked by EPA under Contract Number EP-W-06-042, TDD No. TO-0035-11-09-02 and Amendments A and B (Appendix G) to conduct Documented Release Sampling (DRS) at the Section 12 Uranium Mine located in McKinley County, New Mexico. Site coordinates are Latitude 35.453757° North and Longitude 107.850009° West. A Site Location Map is provided as Figure 1-1. All figures and tables are provided as separate portable document format (PDF) files. START-3 has prepared this DRS Report to provide EPA with field radiation scanning results and present analytical data obtained during the field investigation performed at the Section 12 Uranium Mine.

1.1 SITE BACKGROUND

Under the authority of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) and the Superfund Amendments and Reauthorization Act of 1986 (SARA), START-3 was tasked to perform DRS at the Section 12 Uranium Mine (“the Site”) located near Ambrosia Lake, McKinley County, New Mexico.

The Section 12 Uranium Mine was identified as a potential hazardous waste site and entered into the Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) under CERCLIS No. NMN000607185. According to the New Mexico Environment Department (NMED) Ground Water Quality Bureau Pre-CERCLIS Screening Assessment of Section 12 Uranium Mine dated 08 October 2010, the last documented site reconnaissance was performed on 29 July 2010 by NMED, the New Mexico Energy, Minerals, and Natural Resources Department (NMEMNRD), Mr. George Lotspeich (current mineral rights permittee), and representatives from MMD and Neutron Energy, Inc (Reference 1). During this site reconnaissance performed on 29 July 2010, radiological readings recorded at Section 12 Uranium Mine ranged from 7,000 to 100,000 counts per minute (cpm). On 23 August 2011, EPA conducted an Airborne Spectral Photometric Environmental Collection Technology (ASPECT) overflight of the Ambrosia Lake area and collected gamma radiological measurements for exposure rate, total count rate, and elemental uranium. Results from the ASPECT overflight indicated elevated radiation exposure rates, uranium concentrations, and

gamma radiation activity (total count rate). Figure 1-2 presents the ASPECT overflight exposure rate results.

START-3 has prepared this report to provide available background information collected for the Section 12 Uranium Mine, discuss the DRS activities, and present the analytical data obtained as part of the investigation.

1.2 OBJECTIVES OF THE INVESTIGATION

After reviewing the NMED memorandum and reviewing the results obtained from the ASPECT overflight, the EPA concluded that an investigation was needed to determine if hazardous substances have been released to the environment from past historical mining activities and despite reclamation histories of the mine. This investigation is designed to provide a high-confidence determination by direct observation, field measurement, and laboratory analysis that a hazardous substance has been released at the mine site, termed a “documented release.” The definition of a release under CERCLA (Section 101(22)) is *“[A]ny spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment (including the abandonment or discarding of barrels, containers, and other closed receptacles containing any hazardous substance or pollutant or contaminant)...”* For the purpose of this investigation, a documented release can be established by chemical analysis that requires attributing the hazardous substance to the site, determining background concentrations, demonstrating that the concentration of the hazardous substance in a release sample is significantly increased above background concentrations, and attributing some portion of the significant increase to the site. EPA will use this information obtained during the DRS to determine if additional investigation and/or reclamation is warranted and to prioritize those actions for all uranium mines in the Grants Mining District.

1.3 SCOPE OF WORK

The DRS Scope of Work is intended to describe the tasks requiring completion in order to evaluate the Section 12 Uranium Mine. As part of this DRS, START-3 performed the following major tasks:

- Prepared a site-specific Quality Assurance Sampling Plan (QASP), approved by the EPA, and, Health and Safety Plan (HASP) prior to sampling activities.
- Evaluated the available information from the on-site observations, historical aerial photographs, area environmental information, and historical documents provided by EPA.
- Conducted DRS field sampling/scanning activities on 07, 08, and 09 November 2011. Samples were collected at various locations with the highest 1-minute stationary gamma measurements. The samples were collected in general accordance with the site-specific QASP and HASP to document the presence and migration of hazardous substances attributable to the Section 12 Uranium Mine.
- Submitted the DRS samples to National Environmental Laboratory Accreditation Program (NELAP) certified laboratories for analysis and reviewed and tabulated the resulting data.
- Compared the laboratory results to three times the background concentrations to establish a documented release.
- Prepared this report to present the findings of the DRS.

1.4 REPORT FORMAT

The DRS report contains the following sections:

- Section 1 – Introduction
- Section 2 – Site Characteristics
- Section 3 – Documented Release Sampling
- Section 4 – Summary
- Section 5 – References

Additional information is provided in the following appendices:

- Appendix A Digital Photographs
- Appendix B START-3 Site Logbook
- Appendix C START-3 Quality Assurance Sampling Plan
- Appendix D Laboratory Data Packages
- Appendix E Laboratory Data Validation Packages
- Appendix F Reference Documentation
- Appendix G TDD No. 0035-11-09-02 and Amendments A-B

Tables and figures cited in this report are provided as PDF files. Photographs taken during the DRS activities are provided as Appendix A. The START-3 field logbook notes are provided as Appendix B. The site-specific QASP is provided as Appendix C.

2. SITE CHARACTERISTICS

Information regarding the site location, description, and site history is included in the following subsections.

2.1 SITE LOCATION AND DESCRIPTION

The Section 12 Uranium Mine is within the Ambrosia Lake Mining District located 19 miles north-northwest of Grants in McKinley County, New Mexico. The reclaimed area of the Section 12 Mine Site is approximately 17 acres in size. The Section 12 Uranium Mine can be reached from Grants, New Mexico via Highway 605 north for 13 miles, then turning west on Highway 509 for approximately 6 miles until a gated gravel road leads east toward the Section 12 Uranium Mine.

2.2 SITE HISTORY

The Grants Mining District provided significant uranium extraction and production in New Mexico from the 1950s until late in the 20th century. Ninety-seven former legacy uranium mines and five mill sites have been identified in the Ambrosia Lake, Laguna, and Marquez subdistricts.

The Section 12 Mine was considered an underground dry mine during operation, when a mineshaft was sunk to a depth of approximately 700 feet and tied into the Dysart #2 mine site. The site is in close proximity to Martin Draw to the north. Martin Draw extends southeastward to join Arroyo del Puerto near the northwest end of the Rio Algom Mill site. The site is located immediately adjacent to the original Ambrosia Lake surface water body. The size of the water body is dependent upon the total annual precipitation and time of year. Site features and conditions are most recently documented in reports from a site reconnaissance visit performed by New Mexico regulatory agency personnel on July 29, 2010 and from an EPA Airborne Spectral Photometric Environmental Collection Technology (ASPECT) survey performed on 23 August 2011. The gamma radiation readings at the Section 12 Uranium Mine were statistically greater than background readings in the area based on the ASPECT survey overflight results.

3. DOCUMENTED RELEASE SAMPLING

The specific information regarding field observations, sampling activities, background determination, gamma scanning and measurements, soil sampling, and deviations from the QASP are included in the following subsections (Reference 2).

3.1 OVERVIEW

START-3 was tasked to conduct DRS of the Section 12 Uranium Mine including collecting environmental samples, performing gamma scanning of approximately 10% of the mine area, and collecting 75 stationary 1-minute gamma measurements. The specific sampling objectives were to collect data that could be used to document a release of hazardous substances to the environment as a result of historical mining operations. The Contaminants of Concern (CoCs) include all identifiable gamma emitting radioisotopes, specifically the daughters of uranium-238 (U-238), and radium-226 (Ra-226). Additional CoCs include arsenic, molybdenum, selenium, and total uranium.

START-3 implemented the Quality Assurance Sampling Plan (QASP) at the Section 12 Uranium Mine Site between 07 and 09 November 2011. START-3 collected gamma measurements sufficient to provide approximately 10% coverage of the surface area of the mine. Figure 3-1 illustrates the assessment area. Mine area gamma radiation distribution results are presented in Table 3-1. In addition, 1-minute stationary gamma measurements were collected at approximately 75 evenly spaced grid locations throughout the mine area. The stationary gamma measurements are listed in Table 3-2 and the locations are presented on Figure 3-2. In addition, nine soil samples and one duplicate soil sample were collected at the 1-minute stationary locations that had elevated gamma activity. Four background soil samples, shown on Figure 3-1, were collected to the north, east, south, and west near the perimeter of the mine area, and 1-minute stationary readings were collected at each location. One surface water sample and a 1-minute stationary reading were also collected from Ambrosia Lake located on the Section 12 Uranium Mine Site. The locations of the background samples and surface water sample from Ambrosia Lake are presented on Figure 3-1 and the 1-minute stationary gamma measurements are listed in Table 3-2.

Surface soil samples and a surface water sample were collected and submitted to a National Environmental Laboratory Accreditation Program (NELAP) certified laboratory for the following analyses: total metals including arsenic, molybdenum, selenium, and total uranium by Methods SW846 6010/6020 and 7470/7471 and all identifiable gamma emitting radioisotopes by Method LANL ER-0130 gamma spectrometry. One sample was also analyzed for isotopic uranium and thorium by ASTM 3972-90M alpha spectrometry after the sample was suspected to be in disequilibrium upon reviewing the gamma spectrometry results. The analytical data were validated by START-3. Laboratory analytical results for radioisotopes and metals are presented in Tables 3-3 and 3-4, respectively. The laboratory data packages are included in Appendix D. The validated laboratory data packages are included in Appendix E.

3.2 FIELD OBSERVATIONS

The START-3 site reconnaissance took place on 07 through 09 November 2011. The weather was mostly cloudy, with a high temperature of 32 degrees Fahrenheit and strong winds on 07 November; snow accumulated throughout the mine area in the afternoon. The weather was partly cloudy with a high of 40 degrees Fahrenheit on 08 November with snow cover throughout the site and sunny with a high of 52 degrees Fahrenheit on 09 November with little to no snow on the ground. The mine area was generally flat and was fairly uniformly covered in desert grass vegetation, although grass density varied depending on location. During the site reconnaissance, it was noted that cattle had access to the mine area, including Ambrosia Lake. Gamma readings around Ambrosia Lake and on the northern side of the Section 12 Uranium Mine were generally lower than the remainder of the mine site, and the soil was mostly light brown in color and appeared to be seasonally covered in water from Ambrosia Lake rising and falling annually. The eastern half of the Section 12 Uranium Mine Site comprised of a slightly rocky, light grayish colored soil, where the majority of the elevated gamma readings were recorded.

3.3 BACKGROUND DETERMINATION

The START-3 QASP (Reference 2) protocol determines the background for the each individual legacy mine as the mean of the field measurements and laboratory results of samples collected from four locations at the perimeter of the property. These four sample locations correspond to

the four cardinal directions of the compass (north, east, south, and west). The protocol indicates that a site background location should have similar physical, chemical, geological, radiological, and biological characteristics of the legacy mine site if there were no impacts from uranium mining and milling at the site. START-3 collected four background soil samples to the north, east, south, and west of the mine site, where 1-minute stationary gamma measurements were also collected. In addition, the background sample on the east side of the Section 12 Uranium Mine had fairly elevated radium-226 results, over 13 times higher than average of the north, south, and west radium-226 results. Also, total uranium results for this background location were over 11 times higher than the average of the remaining background location sample results. Due to these results, the eastern background sample will not be used in calculating the background average for comparison to the Section 12 Uranium Mine soil sample results.

3.4 GAMMA SCANNING

Due to the size of the Section 12 Uranium Mine, START-3 determined that approximately 10% of the surface area would be scanned using a 2" X 2" NaI detector held approximately 1 meter above the ground surface in conjunction with a Global Positioning System (GPS) unit. Evenly placed transects were walked across the mine site from one end of the disturbed claim boundary to another. Each transect was spaced approximately 100 feet apart. One-second measurements of gamma activity were recorded and electronically attached to the appropriate GPS designation for the subsequent plotting and depiction of the ambient gamma activity. A total of 6,363 gamma radiation measurements were collected from the mine area, ranging from 8,054 cpm to 399,466 cpm. Section 12 Uranium Mine gamma radiation results and statistics are presented in Table 3-1 and on Figure 3-1.

3.5 STATIONARY GAMMA MEASUREMENTS

Stationary 1-minute gamma measurements were collected at 75, 100-foot evenly spaced grid locations across the Section 12 Uranium Mine, using the same type of instrumentation and at the same height above the ground surface as the gamma scanning measurements. Because the stationary measurements are integrated over 1-minute intervals versus 1-second intervals, the measurements provide a more accurate measurement of the ambient gamma activity at that point.

The QASP protocol states that a single-point measurement greater than two times the background average concentration indicates a documented release at the mine (Reference 2). At the 75 total stationary locations, gamma measurements ranged from 17,441 cpm to 241,022 cpm, with 40 measurements exceeding two times the background average measurement of 17,343 cpm. The stationary measurement locations and measurements are illustrated in Figure 3-2 and presented in Table 3-2.

3.6 SOIL AND WATER SAMPLING

START-3 collected 14 soil samples (including 4 background and 1 duplicate sample) at 0 to 6-inch depths at locations identified by the stationary measurements as being suspect. Figure 3-2 depicts the sampling locations, and Table 3-2 presents the 1-minute stationary gamma measurements at each sample location. Surface soil samples were collected and submitted for total metals including arsenic, molybdenum, selenium, and total uranium by Methods SW846 6010/6020 and 7470/7471, and all identifiable gamma emitting radioisotopes by Method LANL ER-0130 Gamma Spectrometry. The QASP states that if any sample contains U-238 as determined by alpha spectrometry or Ra-226 as determined by gamma spectrometry at a concentration equal to or greater than three times the mean background average concentration, the mine will be identified as having a documented release (Reference 2). Ten samples from the Section 12 Uranium Mine exceeded three times the background average concentration for Ra-226. The analytical data were validated by START-3. The metals and radioisotopes laboratory results are included in Tables 3-3 and 3-4. Data are presented in Tables 3-2 and 3-3. The validated laboratory data packages are included in Appendix E.

One surface water sample was collected from Ambrosia Lake at the Section 12 Uranium Mine. Figure 3-2 depicts the sampling location. The surface water sample was collected and submitted for total metals including arsenic, molybdenum, selenium, and total uranium by Methods SW846 6010/6020 and 7470/7471; and all identifiable gamma emitting radioisotopes by Method LANL ER-0130 Gamma Spectrometry; gross alpha/beta activity by EPA Method 900; and isotopic uranium and thorium by ASTM 3972-90M alpha spectrometry. The EPA drinking water standard for gross alpha is 15 pCi/l. The surface water sample exceeds this standard by a factor of almost 4 at 71.2 pCi/l. The EPA drinking water standard for combined Radium 226/228 is

5pCi/l. The surface water sample also slightly exceeds this standard with a result of 5.91 pCi/l. The analytical data were validated by START-3. The metals and radioisotopes laboratory results are included in Tables 3-3 and 3-4. Field measurements are presented in Tables 3-2 and 3-3. The validated laboratory data packages are included in Appendix E.

3.7 DEVIATIONS FROM THE QASP

The following deviations from the QASP occurred during the field work:

- The background sample on the east side of the Section 12 Uranium Mine has a Ra-226 concentration of over 13 times higher than the average concentration of the other background location results. In addition, the total uranium concentration at the eastern background location is over 11 times higher than the average concentration of the other background locations. Due to these results, the eastern background sample will not be used in calculating the background average.

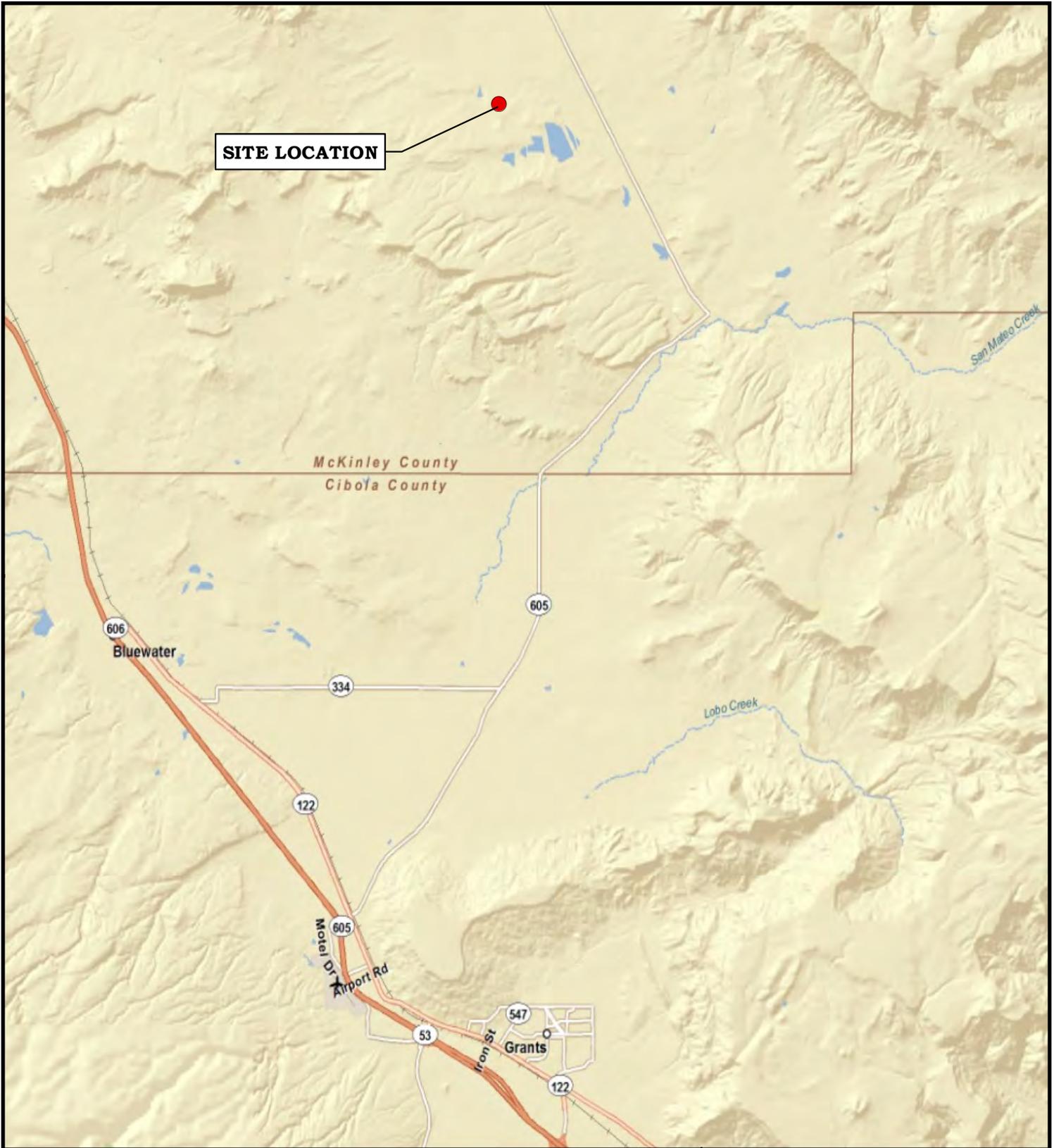
4. SUMMARY

START-3 conducted DRS at the Section 12 Uranium Mine on 07 through 09 November 2011 that included collecting surface gamma radiation measurements in addition to conducting sampling and performing chemical/radiological analyses of surface soil. The specific sampling objectives for the DRS were to collect data that could be used to document a potential release of hazardous substances to the environment and to potentially warrant further site investigation and/or reclamation. Based on the results of the DRS sampling event, soil contamination attributable to the Section 12 Uranium Mine was documented via these contributing factors:

- Forty out of the 75 stationary 1-minute gamma measurement locations had readings higher than two times the mean background average reading of 17,343 cpm, indicating a documented release.
- Ra-226 soil sampling results from the Section 12 Uranium Mine ranged from 13.1 to 241 pCi/g. All ten sample results exceeded three times the background Ra-226 result average of 2.18 pCi/g for the mine. This indicates a documented release at the Section 12 Uranium Mine.
- The current EPA drinking water standard for gross alpha activity is 15 pCi/l. The gross alpha water sample result from Ambrosia Lake at the Section 12 Uranium Mine is 71.2 pCi/l, though the detected concentration of Ra-226 cannot be directly linked to the Section 12 Uranium Mine or any other mine in the area.
- The current EPA drinking water standard for combined Ra-226/228 is 5 pCi/l. The surface Ra-226 result from Ambrosia Lake at the Section 12 Uranium Mine is 5.91 pCi/l, though the detected concentration of Ra-226 cannot be directly linked to the Section 12 Uranium Mine or any other mine in the area.
- Cadmium, copper, lead, mercury, selenium, total uranium, vanadium, and zinc were detected in soil samples that exceeded three times background concentrations, indicating a documented release at the Section 12 Uranium Mine.

5. REFERENCES

1. NMED (New Mexico Environment Department). Pre-CERCLIS Screening Assessment of the Section 12 Mine. 8 October 2010.
2. Weston Solutions, Inc. Quality Assurance Sampling Plan for the Section 12 Uranium Mine, Grants, McKinley County, New Mexico. November 2011.



Legend

- SECTION 12 URANIUM MINE LOCATION



**US EPA REGION 6
START- 3**

FIGURE 1-1
SITE LOCATION MAP
SECTION 12 URANIUM MINE SITE
AMBROSIA LAKE AREA
MCKINLEY COUNTY, NEW MEXICO

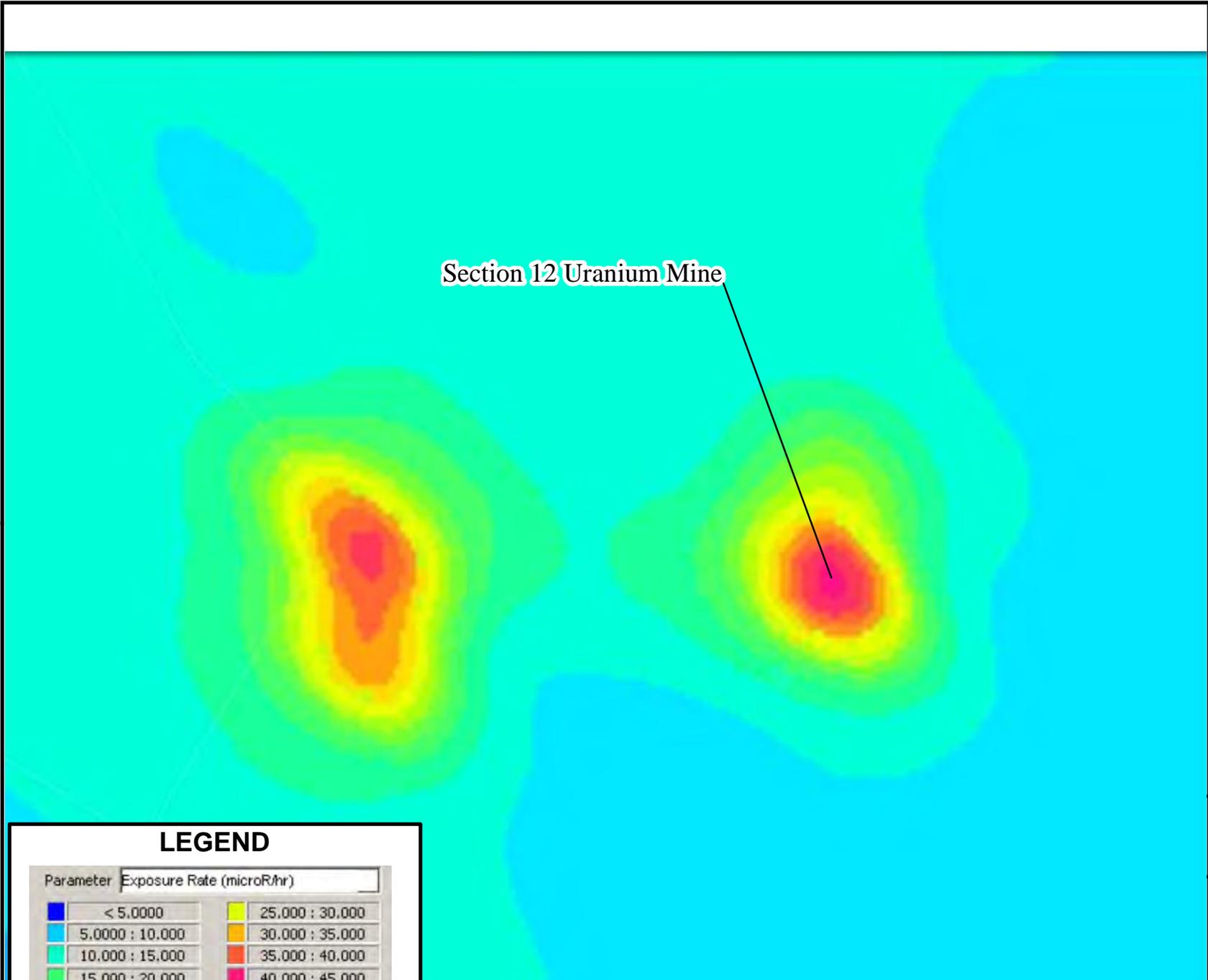
TDD NO: TO-0035-11-09-02
CERCLIS NO.: NMN000607185

SOURCE: ESRI STREETMAP USA

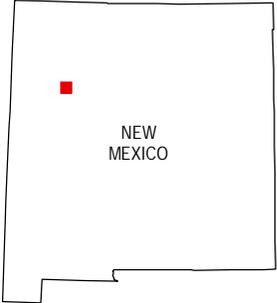
DATE
OCT 2011

PROJECT NO
20406.012.035.0673.01

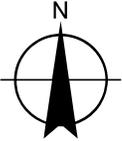
SCALE
AS SHOWN



Section 12 Uranium Mine



*Units are in microroentgen per hour (uR/hr)



TDD NO: TO-0035-11-09-02
 CERCLIS: NMN000607185
 SOURCE: GOOGLE EARTH

LEGEND

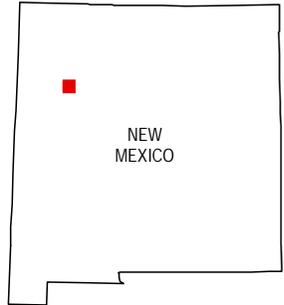
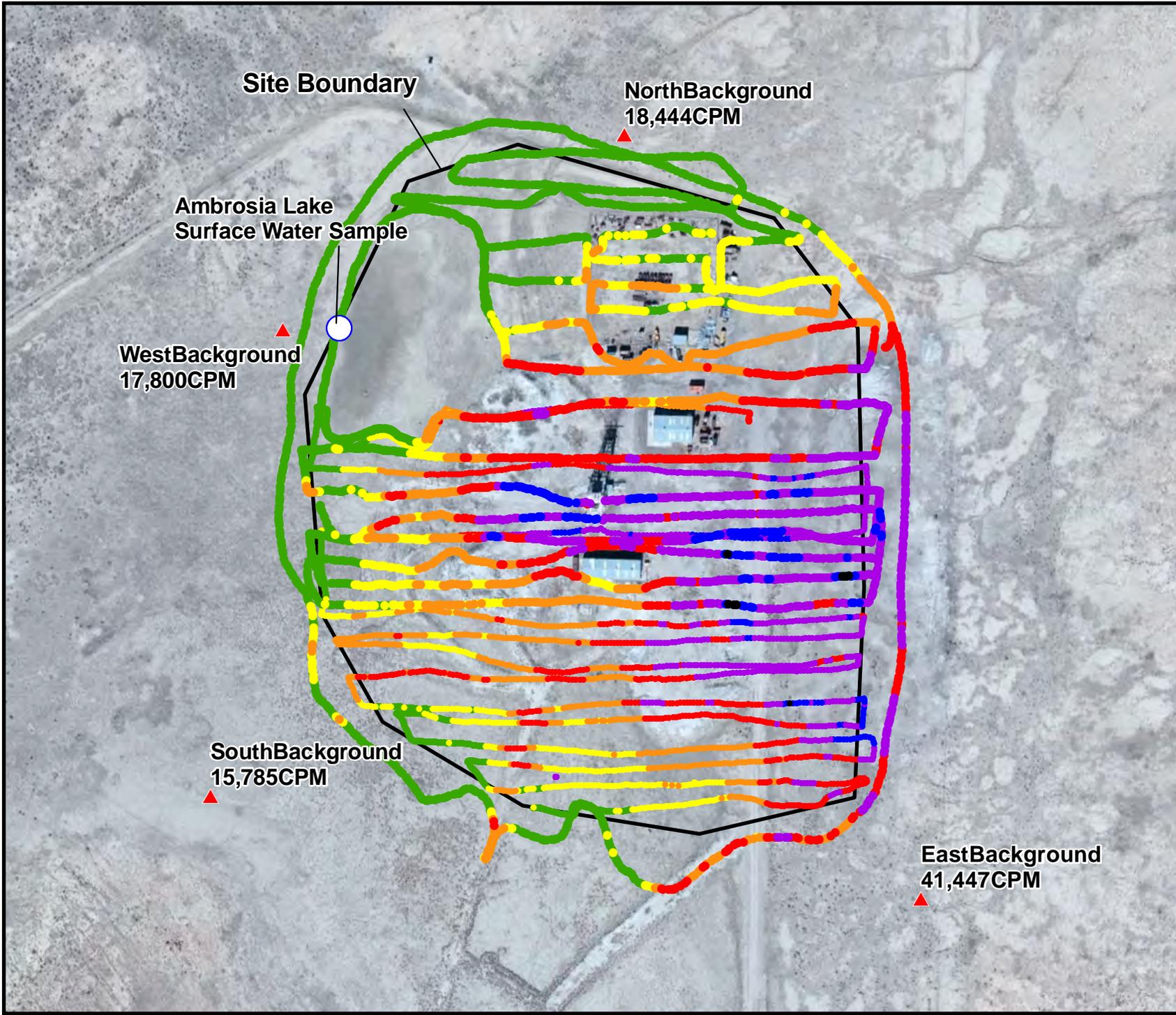
Parameter	Exposure Rate (microR/hr)
	< 5,0000
	5,0000 : 10,000
	10,000 : 15,000
	15,000 : 20,000
	20,000 : 25,000
	25,000 : 30,000
	30,000 : 35,000
	35,000 : 40,000
	40,000 : 45,000
	> 45,000



US EPA REGION 6
 START- 3

FIGURE 1-2
 SECTION 12 URANIUM MINE
 EXPOSURE RATE MAP
 EPA ASPECT OVERFLIGHT
 DATE: 08/23/2011
 AMBROSIA LAKE, MCKINLEY COUNTY
 NEW MEXICO

DATE DEC 2011	PROJECT NO 20406.012.035.0673.01	SCALE N/A
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Legend

- 0 - 23368 (<1X BKGD)
- 23369 - 29999
- 30000 - 49999
- 50000 - 99999
- 100000 - 199999
- 200000 - 299999
- 300000 - 400000
- ▲ Background Locations
- ▭ Section 12 Mine Area
- Surface Water Sample



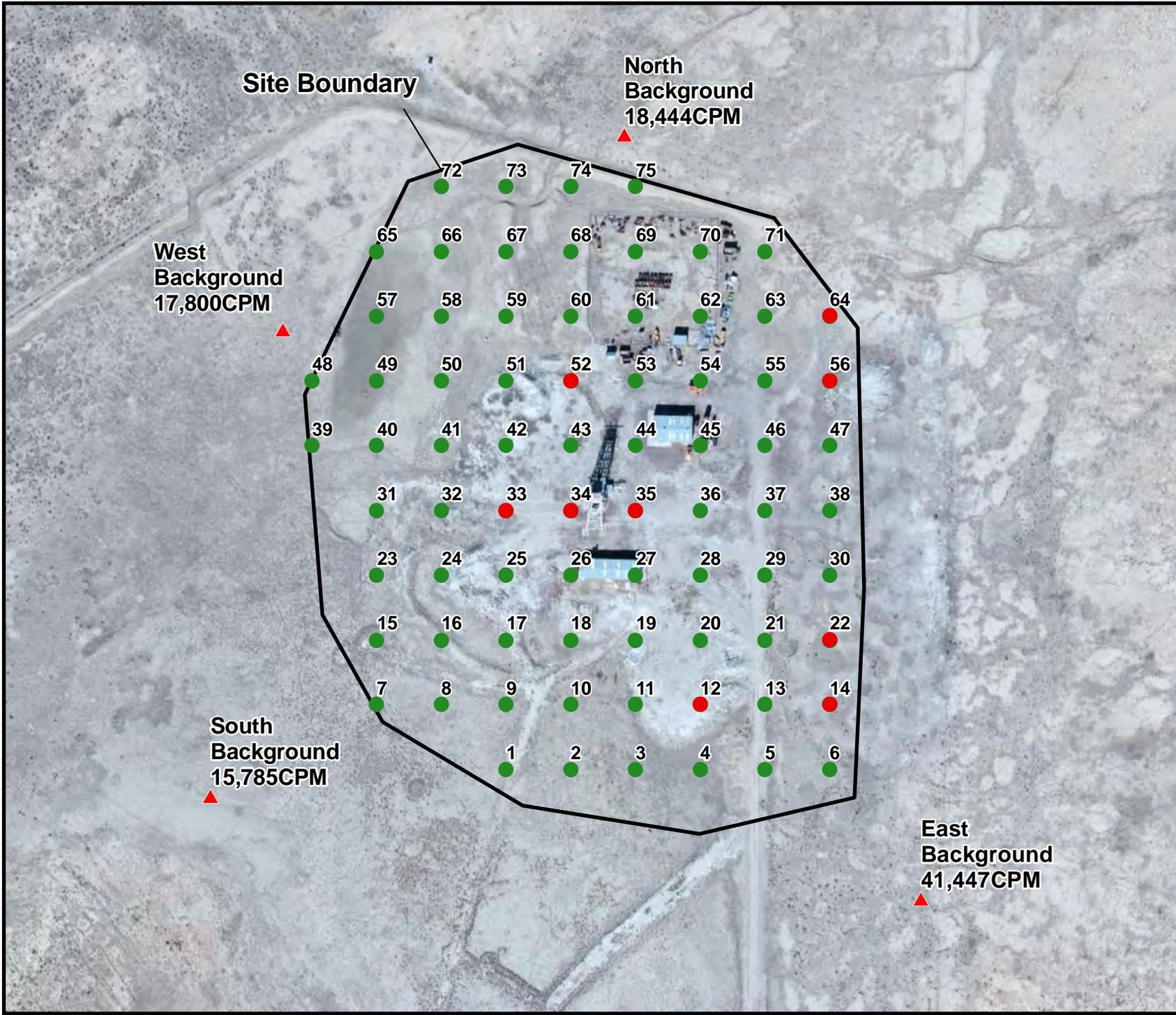
TDD NO: TO-0035-11-09-02
 CERCLIS: NMN000607185
 SOURCE: BING AERIAL MAPS



US EPA REGION 6

FIGURE 3-1
 ASSESSMENT AREA MAP
 SECTION 12 URANIUM MINE
 AMBROSIA LAKE, MCKINLEY COUNTY
 NEW MEXICO

DATE MAY 2011	PROJECT NO 20406.012.035.0673.01	SCALE AS SHOWN
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Legend

- Soil Sample Locations (9)
- Remaining Locations (66)
- ▲ Background Locations
- Section 12 Mine Area



TDD NO: TO-0035-11-09-02
 CERCLIS: NMN000607185
 SOURCE: BING AERIAL MAPS



US EPA REGION 6

FIGURE 3-2
 STATIONARY READINGS MAP
 SECTION 12 URANIUM MINE
 AMBROSIA LAKE, MCKINLEY COUNTY
 NEW MEXICO

DATE MAY 2011	PROJECT NO 20406.012.035.0673.01	SCALE AS SHOWN
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Table 3-1
Site Gamma Radiation Distribution
Section 12 Uranium Mine
Grants Legacy Mine Sites
Grants, McKinley County, New Mexico

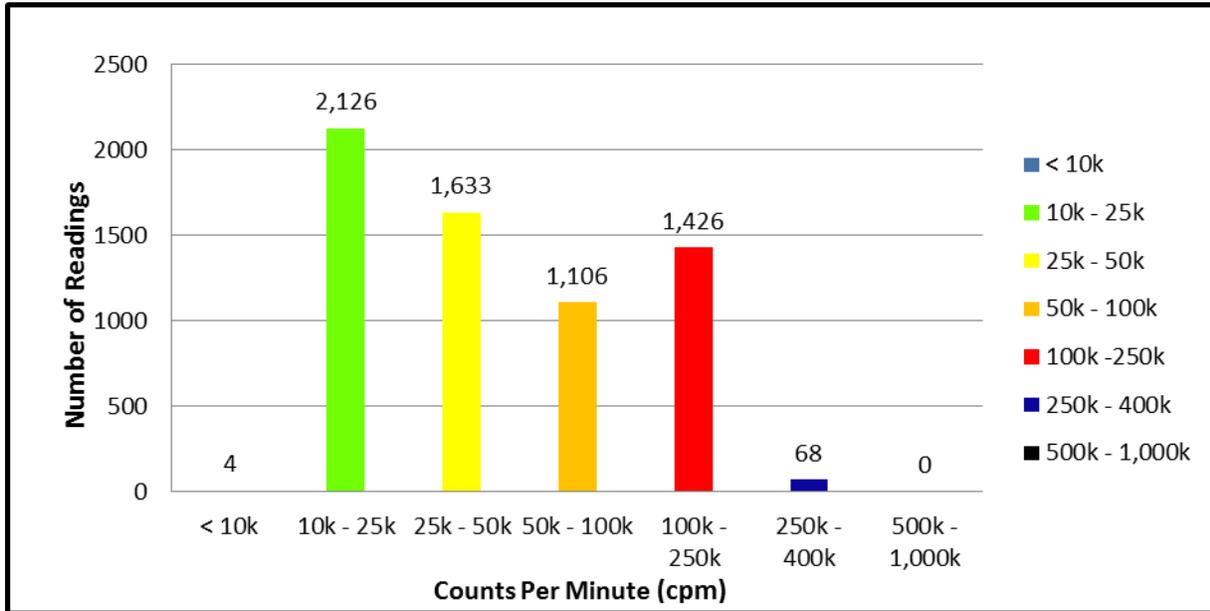


Table 3-2
Stationary Gamma Measurements Summary
Section 12 Uranium Mine
Grants Legacy Mine Sites
Grants, McKinley County, New Mexico

Stationary Location ID	Gamma Activity (Counts Per Minute)	Remark
S12-01-21-111109	54,465	>2X Background
S12-02-21-111109	22,673	
S12-03-21-111109	25,443	
S12-04-21-111109	30,758	
S12-05-21-111109	83,446	>2X Background
S12-06-21-111109	79,322	>2X Background
S12-07-21-111109	20,746	
S12-08-21-111109	21,024	
S12-09-21-111109	23,270	
S12-10-21-111109	26,805	
S12-11-21-111109	50,814	>2X Background
S12-12-21-111107	74,861	Sample Collected; >2X Background
S12-13-21-111109	71,109	>2X Background
S12-14-21-111107	144,468	Sample Collected; >2X Background
S12-15-21-111109	38,985	>2X Background
S12-16-21-111109	24,816	
S12-17-21-111109	28,249	
S12-18-21-111109	40,273	>2X Background
S12-19-21-111109	61,499	>2X Background
S12-20-21-111109	77,233	>2X Background
S12-21-21-111109	166,229	>2X Background
S12-22-21-111107	136,438	Sample Collected; >2X Background
S12-23-21-111109	26,405	
S12-24-21-111109	32,977	
S12-25-21-111109	37,001	>2X Background
S12-26-21-111109	74,249	>2X Background
S12-27-21-111109	31,480	
S12-28-21-111109	67,300	>2X Background
S12-29-21-111109	185,762	>2X Background
S12-30-21-111109	142,468	>2X Background
S12-31-21-111109	37,045	>2X Background
S12-32-21-111109	43,182	>2X Background
S12-33-21-111107	231,451	Sample Collected; >2X Background
S12-34-21-111107	241,022	Sample Collected; >2X Background
S12-35-21-111107	203,006	Sample Collected; >2X Background
S12-36-21-111109	138,273	>2X Background
S12-37-21-111109	107,288	>2X Background
S12-38-21-111109	118,022	>2X Background
S12-39-21-111109	18,455	
S12-40-21-111109	20,927	

Table 3-2
Stationary Gamma Measurements Summary
Section 12 Uranium Mine
Grants Legacy Mine Sites
Grants, McKinley County, New Mexico
(Continued)

Stationary Location ID	Gamma Activity (Counts Per Minute)	Remark
S12-41-21-111109	32,165	
S12-42-21-111109	42,419	>2X Background
S12-43-21-111109	41,001	>2X Background
S12-44-21-111109	47,092	>2X Background
S12-45-21-111109	103,747	>2X Background
S12-46-21-111109	70,095	>2X Background
S12-47-21-111109	125,647	>2X Background
S12-48-21-111109	17,987	
S12-49-21-111109	19,666	
S12-50-21-111109	38,309	>2X Background
S12-51-21-111109	82,133	>2X Background
S12-52-21-111107	137,567	Sample Collected; >2X Background
S12-53-21-111109	38,580	>2X Background
S12-54-21-111109	48,559	>2X Background
S12-55-21-111109	52,933	>2X Background
S12-56-21-111107	106,454	Sample Collected; >2X Background
S12-57-21-111109	17,441	
S12-58-21-111109	19,733	
S12-59-21-111109	21,669	
S12-60-21-111109	30,157	
S12-61-21-111109	22,954	
S12-62-21-111109	24,543	
S12-63-21-111109	27,342	
S12-64-21-111107	38,998	Sample Collected; >2X Background
S12-65-21-111109	17,956	
S12-66-21-111109	18,163	
S12-67-21-111109	19,881	
S12-68-21-111109	20,526	
S12-69-21-111109	23,787	
S12-70-21-111109	22,342	
S12-71-21-111109	22,888	
S12-72-21-111109	17,708	
S12-73-21-111109	18,741	
S12-74-21-111109	18,488	
S12-75-21-111109	19,193	



Table 3-2
Stationary Gamma Measurements Summary
Section 12 Uranium Mine
Grants Legacy Mine Sites
Grants, McKinley County, New Mexico
(Continued)

Stationary Location ID	Gamma Activity (Counts Per Minute)	Remark
ALSW-01-111107	20,000	Ambrosia Lake; Water Sample Collected
BKGD-E-21-111107	41,447	Background Sample Collected (will not be used)
BKGD-N-21-111107	18,444	Background Sample Collected
BKGD-S-21-111107	15,785	Background Sample Collected
BKGD-W-21-111107	17,800	Background Sample Collected



**Table 3-3
Laboratory Results for Radioisotopes
Section 12 Uranium Mine
Grants Legacy Mine Sites
Grants, McKinley County, New Mexico**

												Alpha Spectrometry						
Location	Description	Ac ²²⁸	Bi ²¹⁴	Pb ²¹²	Pb ²¹⁴	K ⁴⁰	Pa ^{234m}	Ra ²²⁶	Tl ²⁰⁸	Th ²³⁴	Gross Alpha	Gross Beta	Th ²²⁸	Th ²³⁰	Th ²³²	U ²³⁴	U ²³⁵	U ²³⁸
Soil		pCi/g	pCi/g	pCi/g	pCi/g	pCi/g	pCi/g	pCi/g	pCi/g	pCi/g	pCi/l	pCi/l	pCi/l	pCi/l	pCi/l	pCi/l	pCi/l	pCi/l
BKGD-E-31-111107	Background (not to be used)	1.86	30.1	1.29	30.6	25.2	28.4	30.1	1.56	12.7								
BKGD-N-31-111107	Background	2.37	2.4	2.49	2.51	27.8	3.93	2.4	1.98	1.77								
BKGD-S-31-111107	Background	2.48	1.88	2.4	2.08	23.9	4.56	1.88	1.9	2.18								
BKGD-W-31-111107	Background	2.72	2.25	2.88	2.28	29.2	6.67	2.25	2.24	4.42								
Background Average	Average Background Concentration	2.52	2.18	2.59	2.29	26.97	5.05	2.18	2.04	2.79								
S12-12-31-111107	On-Site	0.771	37.1	0.779	37	31.3	30.7	37.1	0.807	27.1								
S12-14-31-111107	On-Site	0.522	79.7	2.19	84.3	25.4	37.5	79.7	1.03	51.1								
S12-22-31-111107	On-Site	2.69	108	8.96	109	29	34	108	0.778	53.8								
S12-33-31-111107	On-Site	1.88	178	3.97	181	30.4	203	178	1.61	131								
S12-34-31-111107	On-Site	1.5	181	3.71	185	27.4	146	181	0.846	121								
S12-34-32-111107	On-Site	0.393	173	2.16	180	27.6	160	173	1.54	148								
S12-35-31-111107	On-Site	0.65	241	18.2	240	33.1	293	241	2.56	237								
S12-52-31-111107	On-Site	1.1	55.6	1.11	58	32.9	87.1	55.6	0.707	92.6								
S12-56-31-111107	On-Site	1.59	70.3	1.35	72.5	29	51.7	70.3	1.03	41								
S12-64-31-111107	On-Site	2.16	13.1	2.06	13.2	26.4	13.9	13.1	1.85	11.8								
Location	Description	Ac ²²⁸	Bi ²¹⁴	Pb ²¹²	Pb ²¹⁴	K ⁴⁰	Pa ^{234m}	Ra ²²⁶	Tl ²⁰⁸	Th ²³⁴	Gross Alpha	Gross Beta	Th ²²⁸	Th ²³⁰	Th ²³²	U ²³⁴	U ²³⁵	U ²³⁸
Water		pCi/l	pCi/l	pCi/l	pCi/l	pCi/l	pCi/l	pCi/l	pCi/l	pCi/l	pCi/l	pCi/l	pCi/l	pCi/l	pCi/l	pCi/l	pCi/l	pCi/l
ALSW-01-111107	Ambrosia Lake Water Sample	4.42	5.91	-0.414	8.71	25.8	-100	5.91	-0.198	-14.8	71.2	67.6	0.217	0.594	0.207	15.751	0.577	12.834

pCi/g: picoCuries per gram

pCi/l: picoCuries per liter

Bold and highlighted values are greater than or equal to 3x the background average concentration.

Negative results are achieved because the difference between the sample and laboratory background standard derive a negative number. This is due to laboratory counting error, ultimately indicating a "non detect" result.

**Table 3-4
Laboratory Results for Metals
Section 12 Uranium Mine
Grants Legacy Mine Sites
Grants, McKinley County, New Mexico**

Location	Designation	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Mo	Ni	K	Se	Ag	Na	Tl	Sn	U	V	Zn
Soil		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
BKGD-E-31-111107	Background (not to be used)	12000	2.1	5.9	270	0.78	0.52U	20000	9	5.6	13	19000	15	4400	220	0.035U	1U	12.0	4900	2.1	1U	900	1.1	5.2U	29	22	140
BKGD-N-31-111107	Background	15000	2.1	7	120	1	0.52U	17000	11	7.4	16	22000	17	5200	230	0.035U	1U	15	4400	2.6	1U	110	5.2U	5.2U	3	19	59
BKGD-S-31-111107	Background	14000	2.1	6.2	120	1	0.53U	16000	11	7.1	16	22000	22	5200	200	0.036U	1.1U	14	3900	2.6	1.1U	110U	5.3U	5.3U	2.40	17	59
BKGD-W-31-111107	Background	14000	2.2	7.6	140	1.1	0.54U	18000	11	8.2	19	24000	18	5900	250	0.036U	1.1U	15	4300	2.7	1.1U	110U	5.4U	5.4U	1.90	19	65
Background Average	Average Background Concentration	14333	2.13	6.93	127	1.03	0.53	17000	11	7.57	17	22667	19	5433.3	227	0.0353	1.07	14.7	4200	2.63	1.07	110	5.3	5.3	2.43	18.3	61
S12-12-31-111107	On-Site	4800	2.1U	5.3	25	0.51U	0.51U	7500	2.5	2.2	3.7	9800	7.8	1800	130	0.035	1U	3	790	11	1U	100U	1U	5.1U	45	26	18
S12-14-31-111107	On-Site	8600	2U	5.4	56	0.63	0.5U	16000	5.7	3.8	8.4	15000	16	3000	240	0.077	1U	7.1	2800	11	1U	100U	1U	5U	110	33	32
S12-22-31-111107	On-Site	9300	2.1U	6.8	62	0.68	0.52U	15000	6.4	4.2	9.2	17000	16	3300	220	0.078	1U	7.7	2700	8.2	1U	100U	1U	5.2U	94	31	38
S12-33-31-111107	On-Site	2600	2U	4.6	12	0.5U	0.5U	11000	1.1	1.3	1.9	7400	11	1200	160	0.072	1U	2U	420	8.9	1U	100U	1U	5U	340	56	10
S12-34-31-111107	On-Site	3100	2U	4.5	13	0.5U	0.5U	7100	1.4	1.4	4.1	8000	21	1200	130	0.091	1.2	2U	490	8.7	1U	100U	1U	5U	290	57	46
S12-34-32-111107	On-Site	2900	2U	3.7	12	0.51U	0.51U	7500	1.3	1.3	2.6	7800	15	1100	130	0.097	1U	2U	470	8.5	1U	100U	1U	5.1U	280	55	16
S12-35-31-111107	On-Site	3400	2U	5.5	22	0.57	0.5U	14000	1.8	1.7	2.4	9200	17	1500	210	0.077	1.5	2U	530	8	1U	100U	1U	5U	700	88	13
S12-52-31-111107	On-Site	4700	2.1U	5.2	19	0.52U	0.52U	8600	1.8	1.9	2.8	10000	11	1900	120	0.054	1U	2.1U	580	8.2	1U	100U	1U	5.2U	160	22	16
S12-56-31-111107	On-Site	7200	2.1U	13	46	0.57	4.9	14000	4.7	4.3	64	17000	490	2900	300	0.15	1U	6.9	2200	7.3	1U	100U	1U	5.2U	85	35	780
S12-64-31-111107	On-Site	16000	2.2U	6.1	110	0.97	0.54U	16000	11	7.1	19	22000	29	5300	270	0.036	1.1U	14	4800	1.2	1.1U	110U	1.1U	5.4U	19	23	68
Location	Designation	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Mo	Ni	K	Se	Ag	Na	Tl	Sn	U	V	Zn
Water		mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
ALSW-01-111107	Ambrosia Lake Water Sample	77	0.02	0.052	1.1	0.0092	0.005U	230	0.061	0.061	0.14	140	0.16	47	1.9	0.0002U	0.01U	0.1	42	0.005U	0.01U	18	0.01U	0.05U	0.051	0.19	0.42

mg/kg: milligrams per kilogram

mg/l: milligrams per liter

U - Sample was analyzed for but not detected.

Bold and highlighted values are greater than or equal to 3x the background average concentration.

APPENDIX A DIGITAL PHOTOGRAPHS

To View Photographs:

1) Open the Folder: Appendix A - Digital Photographs

2) Double click on the Icon (in the folder):

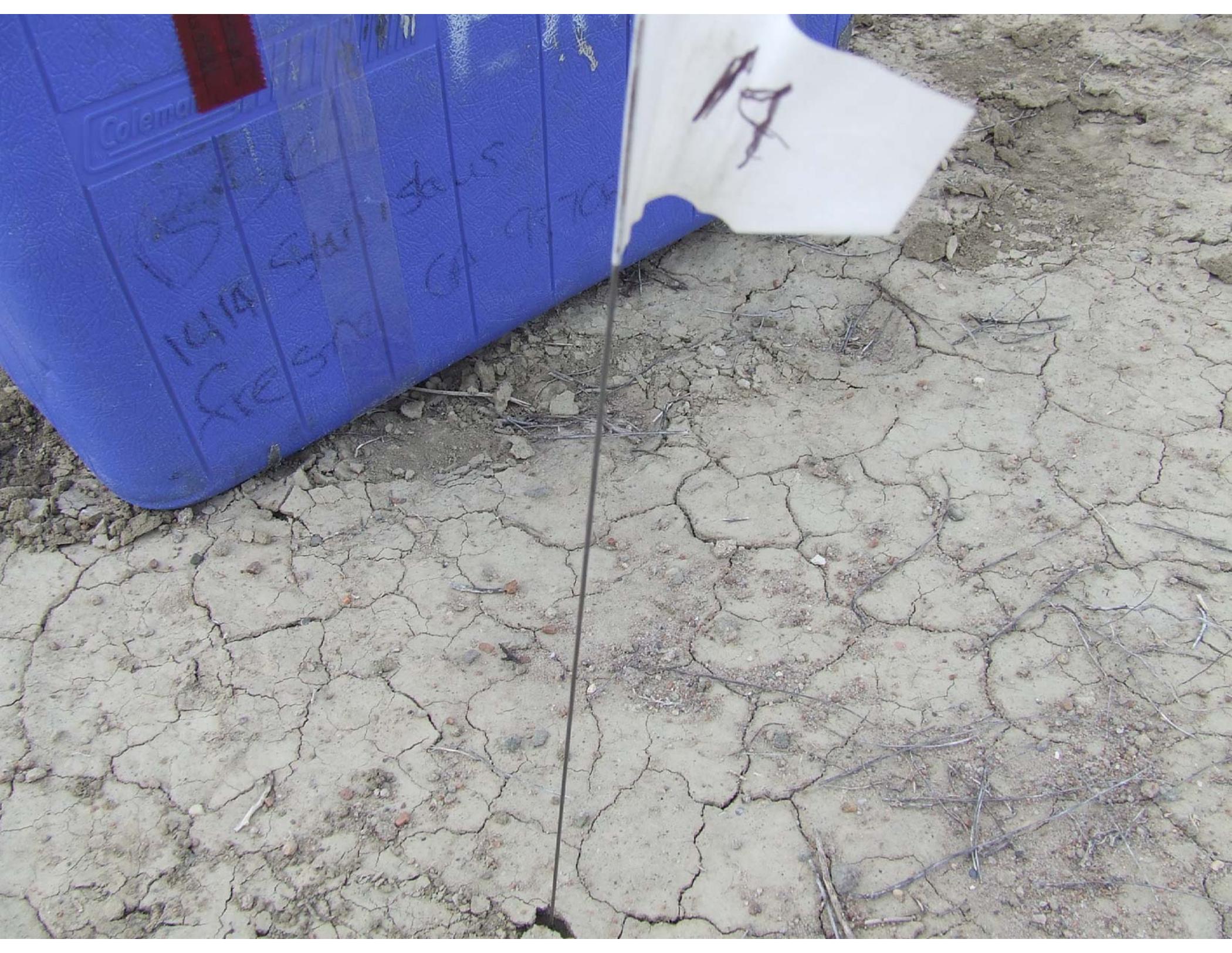


34









Coleman

19/10
FRESH
10/10

17





56

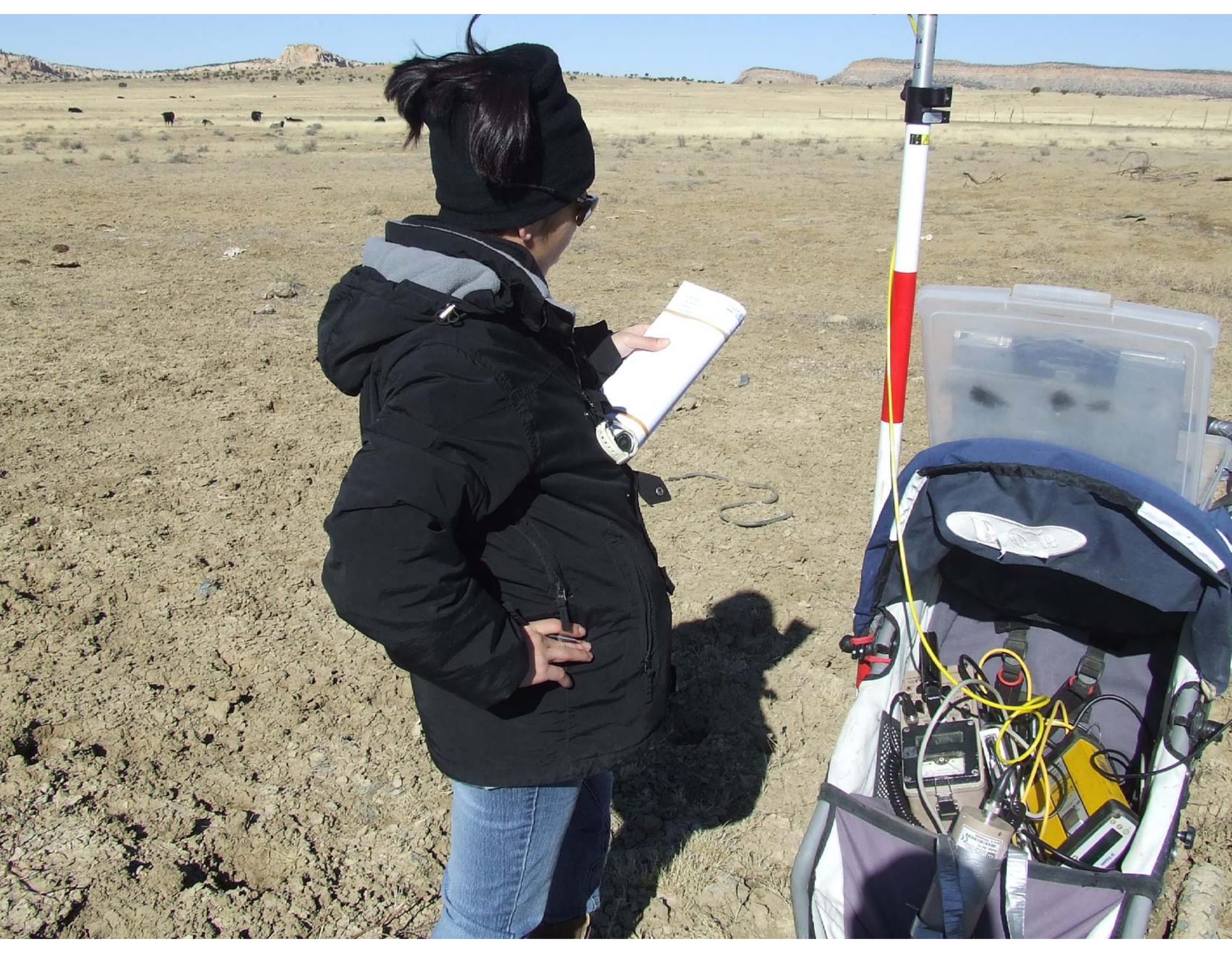
104





52









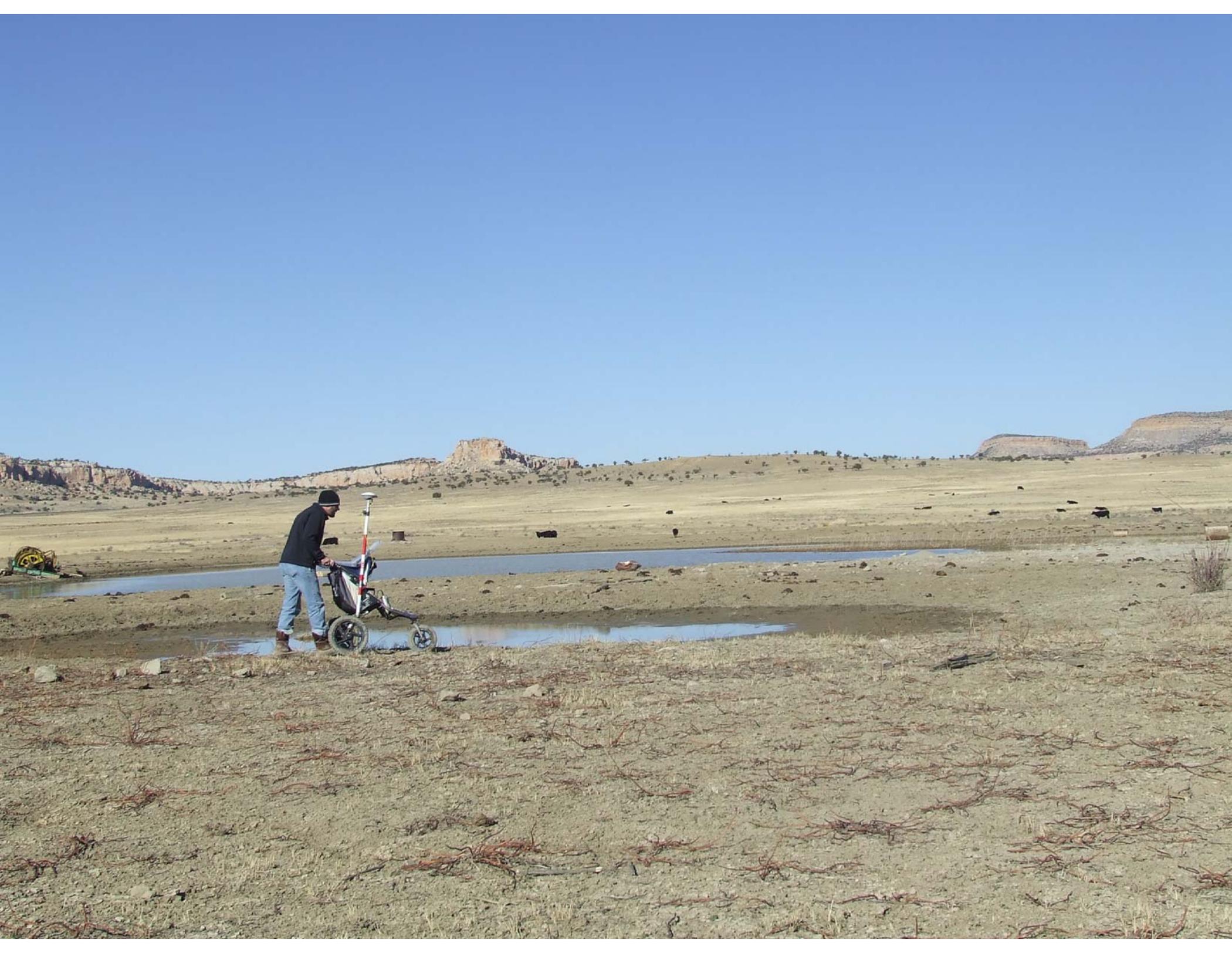










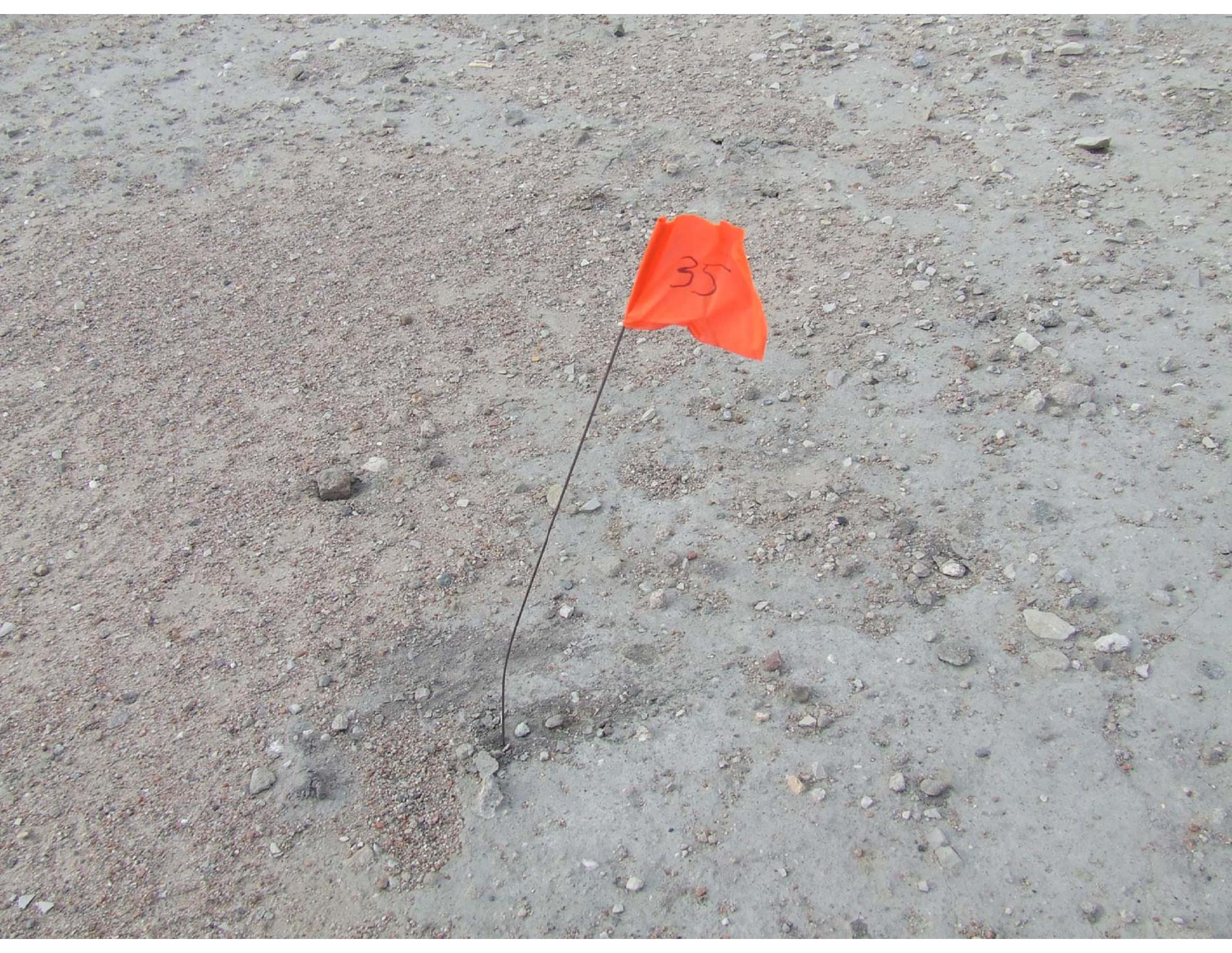












APPENDIX B

START-3 SITE LOGBOOK



"Rite in the Rain"

ALL-WEATHER

JOURNAL

No. 391

SECTION 12 URANIUM MINE
OBSERVED RELEASE SAMPLING
TDD # TO-0035-11-09-02

NOVEMBER 2011

2

TO-0035-11-09-02

START-3 Section 12 Uranium Mine 11/7/11

0715 START-3 members Monique Padroza, Patrick Buster, and Olin Gannon arrive at the Grants EPA command post to calibrate/load equipment. Awaiting the arrival of the EPA SAM LaDona Turner. Scheduled to meet George Loespich at the Kiva Cafe in Milan, NM. Mr. Loespich will escort the team to the Section 12 / ~~Oystert~~ #2 Uranium Mines for field activities. — PB

0920 Depart command post for Kiva Cafe — PB

0940 Arrive at Kiva Cafe — meet with Mr. Loespich.

1020 Arrive at Section 12 Uranium Mine, snow forecasted this afternoon. Conduct Health and Safety meeting. START-3 begins laying out 75 evenly spaced pinflags to mark 1-minute scater measurement locations. One team of two people lay pinflags with ERG rental GPS unit (Ludlum 2221 #282973 and 44-10 282973). Third person will follow behind collecting 1-minute scater measurements with unit # (PK308060 of 44-10 157037). —

1300 Snow Arrives begin —

1400 START-3 begins collecting soil samples at locations 35, 34, 33, 12, 14, 22, 56, 64, 52 and a duplicate at #34. Noted that rain/snow storms are all around.

1500 START-3 collects surface water sample from

TO-0035-11-09-02

START-3 Section 12 Uranium Mine 11/7/11

Ambrosia Lake (ALSW-01-111107) which is immediately west of Section 12 mine shaft. START locates background areas in the 4 cardinal direction of the site. One location (East) seemed unsuitable for a background area. Lowest CPM reading found is 41, 447 CPM. START still collects sample, at N, E, S, W perimeter of Mine site.

1530 Large snowstorm coming in, START-3 begins doing transects after returning from the Grants EPA command post due to GPS/Ludlum problems on Elk unit. — PB

1620 EPA SAM instructs START-3 to stop working, as snowfall is heavy with winds exceeding 40 mph

1700 Arrive at Grants EPA command post, process samples. — PB

END OF LOG ONLY

4

To-0035-11-09-02

START-3 Section 12 Uranium Mine 11/9/11

0700 START-3 arrives at command post. Secure check

Ludlum units, will have ER6 only replace trimble unit for ludlum consistency due to unit malfunction

on the Dysart #2 minesite on 8 November - PB

0820 Arrive at site. Two START-3 members will use RAT buggy on the Section 12 mine to locate 64 lost single point locations (START-3 lost logbook on 8 November). Team lead instructs team to take 4 readings at known locations to ensure gamma readings are similar to previous day. PB

1350 Recapture background GPS latitude/longitude at Section 12 mine. PB

1624 Section 12 gamma scan transects and single point 1-minute readings complete. Compare ludlum units at exact location simultaneously. ER6: 122,332 cpm. #PR308060/sensor #157037: 115,828 cpm. Depart site.

1730 Arrive at Grant's EPA command post. Unload equipment. PB

[Large handwritten signature/initials]

5

To-0035-11-09-02

START-3 Section 12 Uranium Mine 11/9/11

Stationary Gamma Measurements (1-MIN)

Location	Time	CPM	Location	Time	CPM
1	0927	54965	24	1032	32977
2	0926	22673	25	1029	37001
3	0928	25443	26	1027	74249
4	0931	30758	27	1025	31480
5	0933	83446	28	1023	67300
6	0935	79322	29	1021	185762
7	0959	20746	30	1018	142468
8	0956	21024	31	1037	37045
9	0953	23270	32	1040	43182
10	0950	26805	33	1414	231451
11	0943	50814	34	1043	241022
12	0941	76379	35	1046	203006
13	0938	71109	36	1048	138273
14	149,468 ¹⁰ 1025	1125	37	1057 ¹⁰ 1049	107288
15	38985 ¹⁰ 1004	1002	38	1107 ¹⁰ 1051	118822
16	24816 ¹⁰ 1006	1007	39	1109 ¹⁰ 1112	18455
17	28249 ¹⁰ 1008	1006	40	1107 ¹⁰ 1109	20927
18	40273 ¹⁰ 1011	1008	41	1107 ¹⁰ 1107	38165
19	61499 ¹⁰ 1013	1011	42	1102 ¹⁰ 1104	42419
20	77233 ¹⁰ 1015	1013	43	1102	41001
21	105 ¹⁰ 1015	106,229	44	1100	47092
22	1440	136,428	45	1057	103,747
23	1035	26405	46	1055	70095

6

70-0035-11-09-02

START->

Section 12 Uranium Mine

11/9/11

7

Stationary Gamma Measurements (1-MIN)

Location	Time	CPM	Location	Time	CPM
47	1053	125647	70	1150	22342
48	1115	17987	71	1350	22888
49	1124	19666	72	1335	17706
50	1119	38309	73	1333	18741
51	1127	22133	74	1329	18488
52	1130	141425	75	1323	19193
53	1132	38580	Antrosia Lake	1500	20000
54	1134	48859	BK60-E	1506	41447
55	1136	52933	BK60-N	1518	18444
56	1149	106,454	BK60-S	1545	15785
57	1208	17441	BK60-W	1525	17800
58	1157	19733			
59	1157	21669			
60	1155	30157			
61	1144	22954			
62	1142	24543			
63	1138	27342			
64	1452	38,998			
65	1211	17956			
66	1214	18163			
67	126	19881			
68	127	20526			
69	1148	23787			

APPENDIX C

START-3 QUALITY ASSURANCE SAMPLING PLAN

**OBSERVED RELEASE SAMPLING
QUALITY ASSURANCE SAMPLING PLAN
FOR
SECTION 12 URANIUM MINE
GRANTS LEGACY URANIUM SITES
GRANTS, MCKINLEY COUNTY, NEW MEXICO**

Prepared for

U.S. Environmental Protection Agency Region 6
Linda Carter, Project Officer
1445 Ross Avenue
Dallas, Texas 75202

Contract No. EP-W-06-042
Technical Direction Document TO-0035-11-09-02
WESTON Work Order No. 20406.012.035.0673.01
NRC No. N/A
CERCLIS No. NMN000607185
FPN N/A
EPA SAM: Lisa Price
START-3 PTL: Patrick Buster

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November 2011

TABLE OF CONTENTS

Section	Page
1. INTRODUCTION	1-1
1.1 PROJECT OBJECTIVES	1-1
1.2 PROJECT TEAM	1-2
1.3 QASP FORMAT	1-2
2. SITE BACKGROUND.....	2-1
2.1 SITE LOCATION AND DESCRIPTION	2-1
2.2 SITE HISTORY	2-1
3. SAMPLING APPROACH AND PROCEDURES.....	3-1
3.1 OBJECTIVE	3-1
3.2 CRITERIA FOR OBSERVED RELEASE AND DATA QUALITY OBJECTIVES	3-1
3.3 DETERMINATION OF BACKGROUND	3-2
3.4 DIRECT OBSERVATION.....	3-4
3.5 GAMMA SCANNING	3-4
3.6 STATIONARY GAMMA MEASUREMENTS.....	3-6
3.7 SOIL SAMPLING	3-7
4. LABORATORY ANALYSES	4-1
4.1 ANALYTICAL METHODS	4-1
4.2 DATA INTERPRETATION	4-2
5. DATA VALIDATION.....	5-1
5.1 FIELD INSTRUMENTS	5-1
5.2 LABORATORY ANALYSES	5-1
6. WATER SAMPLING.....	6-1
6.1 WATER SAMPLING PROCEDURES.....	6-1
6.2 GROUNDWATER PATHWAY SAMPLING.....	6-1
6.3 SURFACE WATER PATHWAY SAMPLING.....	6-1
7. QUALITY ASSURANCE.....	7-1
7.1 SAMPLE CUSTODY PROCEDURES	7-1
7.2 PROJECT DOCUMENTATION.....	7-2
7.2.1 Field Documentation	7-3
7.2.2 Report Preparation.....	7-5
7.2.3 Response Manager	7-5

LIST OF APPENDICES

Appendix	Title
A	EPA Guidance Documents and WESTON Standard Operating Procedures
B	Site-Specific Data Quality Objectives
C	TDD No. 0035-11-09-02

LIST OF TABLES

Table	Page
Table 4-1 Requirements for Containers, Preservation Techniques, Sample Volumes, and Holding Times.....	4-3

LIST OF FIGURES

Figure	Title
Figure 1-1	Site Location Map

All figures are provided as separate portable document format (PDF) files.

1. INTRODUCTION

Weston Solutions, Inc. (WESTON®), the Superfund Technical Assessment and Response Team (START-3) Contractor, has been tasked by the U.S. Environmental Protection Agency (EPA) Region 6 under Contract Number EP-W-06-042, Technical Direction Document (TDD) No. TO-0035-11-09-02 (Appendix C) to conduct Observed Release Sampling (ORS) at the Section 12 Uranium Mine located in McKinley County, New Mexico. Site coordinates are Latitude 35.453757° North and Longitude -107.850009° West. A Site Location Map is provided as Figure 1-1. All figures are provided as separate portable document format (PDF) files. START-3 has prepared this Quality Assurance Sampling Plan (QASP) to describe the technical scope of work to be completed as part of the TDD.

1.1 PROJECT OBJECTIVES

START-3 is providing technical assistance to EPA Region 6 for conducting ORS sampling at legacy uranium mines. The purpose of the ORS is to determine if past mining activities resulted in releases of hazardous substances to the environment at uranium mine sites that have a wide range of reclamation histories. START-3 will assess the existence and migration of hazardous substances and identify the receptors, or targets, potentially exposed to the hazardous substances. This Quality Assurance Sampling Plan (QASP) provides the generic guidance for conducting ORS and specific field sampling plans for the Section 12 Mine.

The ORS objective will be achieved by evaluating data obtained during the site assessment using a 2 inches by 2 inches NaI detector in conjunction with a Global Positioning System (GPS) unit. The detector will be mounted on a cart or hand-held approximately 15 inches above the soil surface. The instrument will be set with an “open” window to allow detection of the broad spectrum of gamma energies associated with the naturally occurring radionuclides. Samples will be collected from surface soil and potential surface water on-site, downgradient, and at background locations. Sediment samples in the surface water pathway may also be collected during this ORS. Additional samples may be collected to determine specific conditions in

anomalous features on-site, if warranted. Section 4.1 describes the laboratory analyses that will be used as part of this investigation.

1.2 PROJECT TEAM

The Project Team will consist of START-3 personnel including Patrick Buster as the Project Team Leader (PTL), a Data Manager (DM), and a START-3 Field Team Leader (FTL) who will also act as the Field Safety Officer (FSO). The FTL will oversee collection of the samples as necessary, record the activities at each sample location in the field logbook, and verify sample documentation. Sample documentation and preparation is also the responsibility of START-3. The FTL will be responsible for documenting the work performed and will serve as START-3 liaison to EPA Region 6.

1.3 QASP FORMAT

This QASP has been organized in a format that is intended to facilitate and effectively meet the objective of the removal assessment. The QASP is organized as follows:

- Section 1 – Introduction
- Section 2 – Site Background
- Section 3 – Sampling Approach and Procedures
- Section 4 – Laboratory Analyses
- Section 5 – Data Validation
- Section 6 – Water Sampling
- Section 7 – Quality Assurance

2. SITE BACKGROUND

Information regarding the site location, description, and site history is included in the following subsections.

2.1 SITE LOCATION AND DESCRIPTION

The Section 12 Uranium Mine Site is within the Ambrosia Lake Mining District, located 19 miles north-northwest of Grants in McKinley County, New Mexico. The visibly disturbed area of the Section 12 Mine Site appears to be approximately 17 acres in size. The Section 12 Mine Site was in operation from the 1961 until 1983.

2.2 SITE HISTORY

The Grants Mining District provided significant uranium extraction and production in New Mexico from the 1950s until late in the 20th century. Ninety-seven former legacy uranium mines and five mill sites have been identified in the Ambrosia Lake, Laguna, and Marquez subdistricts.

The Section 12 Mine was considered an underground dry mine during operation, when a mineshaft was sunk to a depth of approximately 700 feet and tied into the Dysart #2 mine site. The site is in close proximity to Martin Draw to the north. Martin Draw extends southeastward to join Arroyo del Puerto near the northwest end of the Rio Algom Millsite. The site is located immediately adjacent to the original Ambrosia Lake surface water body. The size of the water body is dependent upon the total annual precipitation and time of year. Site features and conditions are most recently documented in reports from a site reconnaissance visit by New Mexico regulatory agency personnel in July 29, 2010, and from an EPA Airborne Spectral Photometric Environmental Collection Technology (ASPECT) survey. The gamma radiation readings at the Section 12 Mine site were statistically greater than background readings in the area.

3. SAMPLING APPROACH AND PROCEDURES

3.1 OBJECTIVE

The objective of this QASP is to develop a standardized assessment process for legacy uranium mines that includes site reconnaissance and limited sampling that can be accomplished by a small work crew of three to five staff members in one work-day or less. The QASP includes direct observation, field measurements, soil and water sampling, and laboratory analyses to determine with high confidence if a release of hazardous substances has occurred at the mine site. EPA and Weston Standard Operating Procedures (SOPs) are provided as Appendix A.

3.2 CRITERIA FOR OBSERVED RELEASE AND DATA QUALITY OBJECTIVES

The criteria against which each site will be evaluated are taken from the New Mexico Environmental Department (NMED) draft document “*Generic Field Investigation and Soil/Sediment Sampling Work Plan Guidance to Assess a Legacy Uranium Mine Site for An Observed Release*” dated July, 2011. That document describes the following three numerical criteria that define whether a hazardous substance is present and represents an observed release.

1. The on-site gamma count rate will be compared to the mean background gamma count rate to determine if the count rate is equal to or greater than two times the background mean.
2. Laboratory analyses of soil/sediment samples will be compared to the background isotopic concentrations to determine if the concentration is equal to or greater than three times the background mean.
3. Laboratory analyses of soil/sediment samples will be compared to the background isotopic concentrations to determine if the concentration is equal to or greater than two standard deviations above the background mean.

An observed release is part of the Site Investigation strategy for computing a Hazardous Ranking System (HRS) under CERCLA, which is the program administered primarily by the EPA for evaluation of sites for the Superfund NPL (“Guidance for Performing Site Inspections Under CERCLA, EPA/540-R-92-021”). For the purposes of this QASP, the only radioisotopes of concern related to Criteria 2 and 3 above are U-238 and Ra-226. The laboratory analyses will

generate data for other radioisotopes (such as K-40) as a bi-product of the analyses, but these other isotopic data are not relevant to the project objectives and will not be evaluated or compared to any criteria because they are unrelated to uranium mine operations.

More detailed instructions as to how to apply these criteria are discussed in the sections below. However, these criteria are applied to individual measurements or laboratory analyses for each sampling/measurement point. If measurements or laboratory analyses exceed any of these criteria, the site is determined to demonstrate conditions of an “observed release” and is to be considered for further evaluation and possible follow-on action. The criteria are not based on risk or dose, nor are they based on the area size of the impacted soil.

The objective of soil sampling is to determine if a hazardous substance is present and represents an observed release. To accomplish this, data quality objectives (DQOs) have been established and are included in Appendix B. The DQOs presented were developed using the seven-step process set out in the *EPA Guidance for Quality Assurance Project Plans: EPA QA/G-5*.

3.3 DETERMINATION OF BACKGROUND

As stated above, the numerical criteria are relative to either the count rate or soil concentration at some level above the background mean. Therefore, it is critical to accurately identify the background mean for each property or mining claim site. Background radiation has many sources including cosmic, terrestrial, and man-made sources, all of which can contribute to the natural variability of the ambient gamma background count rate level. When considering the natural background concentration of various radioisotopes, Uranium 238 (U-238) and its daughter products (particularly Ra-226), in equilibrium, are commonly found in U.S. soils at concentrations ranging from about 0.5 to 1.5 picocuries per gram (pCi/g). However, since uranium mines are normally located in areas geologically enhanced in uranium, the background levels of U-238 and daughters near legacy uranium mines may be above these concentrations. Other radionuclides found in natural background soils include K-40 at typical concentrations ranging from 10 to 25 pCi/g; Th-232 and daughters ranging from 0.5 to 1.5 pCi/g; and Cs-137, a man-made radioisotope from nuclear weapons testing, at about 0.5 pCi/g. Establishing

background concentrations that describe a distribution of measurement data is necessary to identify and evaluate contributions attributable to legacy mines.

A site background location should have similar physical, chemical, geological, radiological, and biological characteristics as the legacy mine site if there were no impacts from uranium mining or milling at the site. For the purposes of this QASP, the background for each legacy mine site is determined following guidance provided by the HRS protocol. The HRS protocol determines the background for the individual site as the mean of field measurements and laboratory analyses of samples collected from four locations at the perimeter of the property corresponding to the four directions of a compass (N, S, E, and W). After locating the four background locations at the perimeter of the mining claim (or at the boundary of the property), each location should be gamma-scanned (the technique of gamma scanning is described in a following section) to verify that the area appears to have a homogenous gamma ambient level and a visual confirmation that the other four characteristics listed above appear satisfied. The gamma-scan data (count rate and location) should be saved for data validation and quality control purposes.

Due to the nature of the extended uranium mining in the area, a pre-designated background location may exhibit radiological characteristics that do not appear to meet the HRS requirement for a site background to have similar chemical, physical, radiological, geological, and biological characteristics as the legacy mine site if there were no impacts from uranium mining/milling. If the FTL determines that significantly elevated readings are encountered or physical conditions indicate possible impacts from past mining or milling activities, that background location may be moved to another area reasonably close by. If a more suitable background location cannot be located, a sample will still be collected and data will be recorded from the most suitable location in that immediate area. That background location may be used or omitted from consideration based on final data evaluation when the site report is developed.

At each background location, a 1-minute stationary gamma count rate measurement will be collected with the detector held approximately 15 inches above the ground surface. The count rate and location, as recorded by GPS, will be saved and the mean calculated from these four measurements. At each background location, a soil sample will be collected for radiochemical

and stable chemical analyses. A sample of an approximate 6-inch depth and 1 kilogram (kg) mass will be collected in a ziplock plastic bag. Rocks of greater than approximately 0.25-inch diameter should be discarded, as should any biological material such as grass or twigs. Samples should be analyzed by gamma spectrometry for all detectable radioisotopes by this method, and by alpha spectrometry for isotopes of the U-238 and Th-232 decay chains. The suite of metal analytes to be analyzed in each soil sample include the 23 Target Analyte List (TAL) metals: aluminum, tin, arsenic, barium, beryllium, cadmium, calcium, chromium, cobalt, copper, iron, lead, magnesium, manganese, nickel, potassium, selenium, silver, thallium, vanadium, zinc, and mercury, plus two additional metals, total uranium and molybdenum. Additional information and specific analytical techniques are discussed in a subsequent section.

3.4 DIRECT OBSERVATION

An observed release means that hazardous substances have been documented on the mine site or surrounding area soil or water, and that the substances are attributable, at least in part, to the site that is being evaluated. An observed release can be established by direct observation if hazardous substances such as mine ore and/or waste rock that are geologically foreign and mineralogically distinct from the native surface soil and rock composition on the surface of the mine property are present. An observed release can also be established by observation of ore or waste rock transported off-site by wind or water erosion, particularly into nearby drainage channels. Determination of mine surface or off-site contamination by direct observation should be documented by photographs and logbook entries that clearly demonstrate that the site remains impacted by prior mining activities. Determination by direct observation does not quantitatively demonstrate that the numerical criteria have been exceeded, but it is highly likely that subsequent stationary gamma measurements and soil sampling in the areas noted by direct observation will conclusively demonstrate conditions of “observed release.”

3.5 GAMMA SCANNING

Like direct observation, scanning does not provide a quantitative assessment of site conditions but is an excellent tool to assess the relative gamma activity of the area. Scanning is useful in

quickly determining the general radiological condition of the site and determining where background radiological conditions exist. It literally paints a picture that depicts where areas of elevated gamma activity are present and identifies where additional measurements and sampling efforts should be placed.

Gamma scanning will be conducted using a 2 inches by 2 inches NaI detector in conjunction with a GPS unit. The detector will be mounted on a cart or hand-held approximately 15 inches above the soil surface. The instrument will be set with an “open window” to allow detection of the broad spectrum of gamma energies associated with the naturally occurring radionuclides. The technician will walk transects at approximately 0.5 meter per second from one end of the mine claim boundary to another. One-second measurements of gamma activity are recorded and electronically attached to the appropriate GPS designation for subsequent plotting and depiction of ambient gamma activity. The field-of-view for this detector system is approximately 1 meter wide perpendicular to the direction of the travel. The Dysart #2 Mine Site is approximately 17 acres in size, so 10% coverage will be the objective and transects will be walked at a distance of approximately 10 meters apart. With a 10-meter transect spacing the technician can gamma-scan 4.4 acres/hour. It is expected that these transects can be completed within four to six hours with one monitoring team. The FTL may modify the transect spacing as necessary to ensure maximum site coverage and compliance with project scheduling and time constraints based on actual site conditions encountered in the field.

In addition to walking the transects, the technician will visually search for suspect areas such as waste rock or ore piles, mine portals (adits, shafts, vents, bore holes), machinery, building foundations, haul roads, arroyos, stream beds, or surface impoundments to gamma-scan. The technician should use the audible signal from the instrument system to help guide him to areas of elevated gamma activity. If there are many suspect areas needing to be gamma-scanned, a second gamma-scanning system should be employed to help with the survey load.

Data are recorded and plotted in units of gamma counts per minute (CPM). However, the data are collected in counts per second and then multiplied by 60 seconds/minute to arrive at CPM. Therefore, any slight variation in the collected count rate is magnified by this multiplication. For

this reason, it is not unusual for isolated measurements to be significantly elevated above background. These isolated measurements are usually statistical outliers and are not indicative of actual elevated gamma activity. However, any significantly elevated gamma measurements (greater than two times background) should be re-investigated, particularly if there is a locus of elevated measurements around a common point.

Data from these gamma scans provide a useful representation of site conditions and will be presented in the site report with a color-coded display to clearly show the various levels of elevated readings. Because of the statistical variation in the readings, the gamma-scanning data are not used for comparison to the observed release criteria for gamma measurements. These data are useful to identify areas where soil samples should be collected and stationary gamma measurements made.

3.6 STATIONARY GAMMA MEASUREMENTS

Stationary 1-minute gamma measurements will be collected at grid points across the property, and at additional suspect locations identified by the gamma-scanning data. Because these stationary measurements are integrated over 1-minute intervals versus 1-second intervals for the scanning measurements, the stationary measurements will be a more accurate measurement of the ambient gamma activity at that point. Stationary measurements will be made with the same type of instrumentation, and at the same height above ground surface, as the gamma-scanning measurements. The instrument set will again be a 2 inches by 2 inches NaI detector coupled to a GPS system, operated in the “open window” mode, and held at about 15 inches above the ground surface.

The approximate size of the mine site is 17 acres. To collect thorough and sufficient data, grid spacing will be placed at approximately 100-foot-square spacing. This 100-foot grid spacing will generate 75 evenly spaced locations across the property. Assuming 1 minute to collect the data plus 4 minutes of additional time to walk to the next grid point, 75 measurements would require approximately 7 hours to collect, allowing the task to be completed in one work-day if performed in parallel with the other site activities. Visual Sample Plan (VSP) software will be

used to precisely generate sample locations using the designated grid spacing once the perimeter of the site is established. Each measurement location will be assigned its applicable GPS coordinates and located in the field using an appropriate electronic device. If the size of the mine site is altered or other site conditions change during the site reconnaissance, VSP software will be used to re-establish the number of grids and grid spacing most suitable for the mine site as determined by the FTL.

In addition to the grid locations, stationary 1-minute measurements will be collected at suspect areas as identified by direct observation of the site or by gamma-scanning. These measurements will again be collected using the same instrument and GPS system. It is presumed that a second instrument set will be required for these measurements at suspect areas.

Interpretation of these data compares each count rate measurement, collected either from grid points or suspect areas, with the mean gamma background count rate measurement. If any count rate measurement is equal to or greater than two times (2X) the mean background count rate, the property is identified as having an observed release. It is important to note that a property identified as having an observed release may require no further action eventually if, for instance, the majority of the property has levels equal to background. Clean-up levels for these sites are not established in the document, and the observed release criteria are not the clean-up criteria.

3.7 SOIL SAMPLING

Soil samples of 0 to 6-inch depths and approximately 1 kg mass will be collected at locations identified by the stationary measurements as being suspect. It is recommended that the locations with the highest 1-minute stationary readings be the primary locations considered for sampling. It is expected that about 10 samples will be collected from a typical mine site. When a suspect location is selected for sampling based on the stationary measurement, the potential location will first be carefully examined both visually and by radiological scanning to confirm that the site is free of nuggets of ore or waste rock, or other hot particles that can significantly impact analytical results. It is the intent of soil sample analyses to quantify the residual uranium concentration averaged over the entire 1 kg mass, and therefore a reasonably homogeneous sample is desired.

If the suspect area has a few obvious nuggets or hot spots of contamination that are not typical of a broad area being sampled and can be excised, remove the hot spots and re-survey the potential location. Document in the field log what the conditions were and the number of nuggets or hot spots removed. If the ambient gamma activity is still significantly elevated and the location is therefore a good candidate for sampling, continue with the collection of the soil sample at this location, and re-collect the 1-minute stationary measurement at the location. If removing the hot spots has also removed the elevated gamma activity, then another sampling spot should be selected. If the potential sample location is obviously composed of multiple nuggets or hot spots that will likely be excluded when the sample is collected, the sample should not be collected, and another location should be selected for that sample. Again, any non-radioactive rocks of greater than 0.25-inch diameter and any biological material should be removed from the sample, possibly using a sieve. Alternately, if nuggets of elevated radioactivity appear to be widespread and typical for the site, they may be included in the sample if the laboratory has a procedure for crushing and grinding the sample prior to homogenizing, and the laboratory is directed to do so.

4. LABORATORY ANALYSES

4.1 ANALYTICAL METHODS

All samples from the background locations and the suspect locations will be submitted to a qualified radiological laboratory for gamma spectrometry analyses. Sample preparation should include drying and homogenization of the entire 1 kg sample. The minimum gamma spectrometry aliquot size should be 0.5 kg. The laboratory will be requested to report all identifiable gamma emitting radioisotopes, and specifically the daughters of U-238, Ra-226, Th-232, and K-40. The requested sensitivity should be 0.1 pCi/g. The requested analytical procedure for Ra-226 should be by quantification of Bi-214 after an ingrowth period of at least 21 days. The suite of metal analytes to be analyzed in each soil sample include the 23 Target Analyte List (TAL) metals: aluminum, tin, arsenic, barium, beryllium, cadmium, calcium, chromium, cobalt, copper, iron, lead, magnesium, manganese, nickel, potassium, selenium, silver, thallium, vanadium, zinc, and mercury, plus two additional metals, total uranium and molybdenum. Information regarding laboratory, analytical methods, container size, preservation techniques, and hold times is included in Table 4-1.

Since these samples are from legacy mine sites, it is assumed that the U-238 and Th-232 radioisotope decay chains will be in equilibrium. However, due to different solubilities of the chemical species found naturally in the environment, it is possible that the daughters may not be in equilibrium with the parents. Also, it is possible that mill tailings may have been returned to the mine site for storage and/or disposal. If this is the case, then the concentrations of the residual radioisotopes will not be in equilibrium. If it is suspected that any sample may not be in equilibrium, or if verification of equilibrium is desired, then additional analyses for isotopic uranium and isotopic thorium by alpha spectrometry will be requested of the laboratory. Analytical sensitivity of 0.1 pCi/g and a minimum aliquot size of 10 g will be required. It is recommended that one laboratory be selected for both types of analyses.

4.2 DATA INTERPRETATION

Interpretation of these data compares analytical results of each sample with the background mean concentration. If any sample contains U-238 as determined by alpha spectrometry or Ra-226 as determined by gamma spectrometry at a concentration equal to or greater than three times (3x) the mean background concentration or at a concentration equal to or greater than two times (2x) the standard deviation above the mean concentration, the property will be identified as having an observed release. No other isotopic results will be compared to background concentrations. However, the project Certified Health Physicist (CHP) will review any analytical data for isotopes other than U-238 and Ra-226 for which the results appear to exceed the two previously described criteria.

**Table 4-1
Requirements for Containers, Preservation Techniques,
Sample Volumes, and Holding Times
Section 12 Uranium Mine
Grants, McKinley County, New Mexico**

Name	Analytical Methods	Container	Preservation	Minimum Sample Volume or Weight	Maximum Holding Time
TAL Metals plus total uranium, molybdenum, tin and mercury	SW846 6010/6020 SW846 7470/7471	Polyethylene (water), Glass (solid)	HNO ₃ to pH<2 (water), 4°C	500 mL, 8oz	28 days for mercury 180 days all other metals
U-238, Ra-226	Gamma Spectrometry	Polyethylene (water), Glass (solid)	NA (soil/water)	1 gallon, 1 kg (32 oz)	6 months
Uranium/Thorium if determined in field	Alpha Spec ASTM 3972-90M	Polyethylene (water), Glass (solid)	HNO ₃ to pH< 2 (water), NA (soil)	1 liter, 8 oz	6 months

Radiological methods to be conducted by Eberline Analytical, Oakridge, Tennessee.

TAL Metals analyzed by ALS Laboratories, Fort Collins, Colorado.

5. DATA VALIDATION

5.1 FIELD INSTRUMENTS

Each field instrument will be calibrated on an annual basis by a qualified and registered calibration vendor. Validation of field measurements will be accomplished by maintenance and review of daily background and source checks of the instrument sets. Prior to initiation of field activities, 20 one-minute background counts and 20 one-minute source check counts will be collected and a mean calculated. During field operations, a one-minute background count and one-minute source check count will be made at the start and end of each work day. If the individual one-minute count falls outside of the mean +/- 20%, the instrument will not be used until evaluated by the project CHP. Individual control charts will be maintained for the background and source check on each instrument to monitor instrument performance for trends.

5.2 LABORATORY ANALYSES

Analytical laboratory reports will be reviewed by a CHP to confirm compliance with the technical specifications and reasonableness of the analytical results. Technical specifications reviewed will be that the requested isotopes are reported, that the minimum sensitivity was attained, and that the required 21-day in-growth time for Ra-226 was observed. The reasonableness of the data will be evaluated by review of the various gamma spectrometry results to determine if they are in equilibrium, if appropriate, and if the results are within the expected range of results.

6. WATER SAMPLING

6.1 WATER SAMPLING PROCEDURES

WESTON Standard Operating Procedures (SOPs) 1002-01 for Surface Water Sample Collection and 1002-02 for Groundwater Monitoring Well Sample Collection (Appendix A) will be utilized if either groundwater or surface water is observed on or in the vicinity of the mine site. The specific sampling procedures are described below.

6.2 GROUNDWATER PATHWAY SAMPLING

An attempt will be made to collect groundwater samples from any groundwater monitoring wells or home/ stock water supply wells that exist either on-site or within 1,000 meters of the nearest property boundary. No on-site wells were noted during the NMED site reconnaissance on 29 July 2010. Survey personnel will measure depth to groundwater in each of the wells and then follow the EPA Guidance for Low-Flow (Minimal Drawdown) Groundwater Sampling Procedures (Appendix A) for sampling the wells, if appropriate. Readings for temperature, pH, and conductivity will be collected every 5 minutes. Once three consecutive readings stabilize for pH (+ 0.5 units), conductivity (+ 10% $\mu\text{mhos/cm}$), and temperature (+ 1°C), or the water has purged for a maximum of 30 minutes, the samples will be collected. The groundwater samples will be analyzed for the same list of radionuclides and TAL metals as were identified for soil samples.

6.3 SURFACE WATER PATHWAY SAMPLING

An attempt will be made to collect a surface water sample and a sediment sample from any existing surface water impoundments, streams, or stock ponds that exist either on-site or within 1,000 meters of the nearest property boundary to document a release to the surface water pathway from the site. Samples will be analyzed for the same list of radionuclides and TAL metals as were identified for soil samples. Ambrosia Lake is a shallow surface water impoundment and is located adjacent to and northwest of the site. The shallow body of water is approximately four acres in size when full. The site has the potential to supply surface sediment

and/or soil into Martin Draw and Arroyo del Puerto during high precipitation runoff events. If Ambrosia Lake contains water during the site reconnaissance, surface water samples may be collected. If Ambrosia Lake is dry during the site reconnaissance, START-3 will collect gamma scanning data from the lakebed to assess the potential occurrence of impacts from dispersal of waste materials that may have been left on the Section 12 mine site. If gamma scanning data collected from the channel are suspect, it is possible that soil/sediment sample(s) may be collected from Ambrosia Lake and analyzed for the same list of radionuclides and TAL metals as were identified for soil samples. Martin Draw is a drainage pathway to the west of this site, but it is located immediately adjacent to the Dysart #2 Mine Site and will be addressed in the QASP for that site. Data from samples collected at the Martin Draw feature will be included in the report for the Dysart #2 Mine, as appropriate.

7. QUALITY ASSURANCE

Quality assurance will be conducted in accordance with the WESTON Corporate Quality Management Manual, dated March 2004; the WESTON START-3 Quality Management Plan, dated August 2007; and EPA Quality Assurance/Quality Control Guidance for Removal Activities, dated April 1990. Following receipt of the TDD from EPA, a Quality Control (QC) officer will be assigned and will monitor work conducted throughout the entire project including reviewing interim report deliverables and field audits. The START-3 PTL will be responsible for QA/QC of the field investigation activities. The designated laboratory utilized during the investigation will be responsible for QA/QC related to the analytical work. START-3 will also collect samples to verify that laboratory QA/QC is consistent with the required standards and to validate the laboratory data received.

7.1 SAMPLE CUSTODY PROCEDURES

Because of the evidentiary nature of sample collection, the possession of samples must be traceable from the time the samples are collected until they are introduced as evidence in legal proceedings. After sample collection and identification, samples will be maintained under chain-of-custody (COC) procedures. If the sample collected is to be split (laboratory QC), the sample will be allocated into similar sample containers. Sample labels completed with the same information as that on the original sample container will be attached to each of the split samples. All personnel required to package and ship coolers containing potentially hazardous material will be trained accordingly.

START-3 personnel will prepare and complete chain-of-custody forms using the Scribe Environmental Sampling Data Management System (SCRIBE) for all samples sent to a START-3 designated off-site laboratory. The chain-of-custody procedures are documented and will be made available to all personnel involved with the sampling. A typical chain-of-custody record will be completed each time a sample or group of samples is prepared for shipment to the laboratory. The record will repeat the information on each sample label and will serve as documentation of handling during shipment. A copy of this record will remain with the shipped samples at all times, and another copy will be retained by the member of the sampling team who

originally relinquished the samples. At the completion of the project, the data manager will export the SCRIBE chain-of-custody documentation to the Analytical Service Tracking System (ANSETS) database.

Samples relinquished to the participating laboratories will be subject to the following procedures for transfer of custody and shipment:

- Samples will be accompanied by the COC record. When transferring possession of samples, the individuals relinquishing and receiving the samples will sign, date, and note the time of the sample transfer on the record. This custody records document transfer of sample custody from the sampler to another person or to the laboratory.
- Samples will be properly packed for shipment and dispatched to the appropriate laboratory for analysis with separate, signed custody records enclosed in each sample box or cooler. Sample shipping containers will be custody-sealed for shipment to the laboratory. The preferred procedure includes use of a custody seal wrapped across filament tape that is wrapped around the package at least twice. The custody seal will then be folded over and stuck to seal to ensure that the only access to the package is by cutting the filament tape or breaking the seal to unwrap the tape.
- If sent by common carrier, a bill of lading or airbill will be used. Bill of lading and airbill receipts will be retained in the project file as part of the permanent documentation of sample shipping and transfer.

SOPs 1101.01 and 1102.01 describe these procedures in more detail.

7.2 PROJECT DOCUMENTATION

All documents will be completed legibly and in ink and by entry into field logbooks, Response Manager, or SCRIBE. Response Manager is the Enterprise Data Collection System designed to provide near real-time access to non-analytical data normally collected in logbooks. Response Manager provides a standard data collection interface for modules of data normally collected by START-3 field personnel while on-site. These modules fall into two basic categories for Response and Removal. The modules include Emergency Response, Reconnaissance, Facility Assessment, Shipping, Containers, Materials, Calls, HHW, and General/Site-Specific data. The system provides users with a standard template for laptop/desktop/tablet PCs that will synchronize to the secure web interface using merge replication technology to provide access to field collected data on the RRC-EDMS EPA Web Hub. Response Manager also includes a PDA application that provides some of the standard data entry templates from Response Manager to

users for field data entry. Response Manager also includes an integrated GPS unit with the secure PDA application, and the coordinates collected in Response Manager are automatically mapped on the RRC-EDMS interactive mapping site. GIS personnel can then access this data to provide comprehensive site maps for decision-making support.

Response Manager also includes an Analytical Module that is designed to give SCRIBE users the ability to synchronize the SCRIBE field data to the RRC-EDMS Web Hub. This allows analytical data managers and data validators access to data to perform reviews from anywhere with an Internet connection. The Analytical Module is designed to take the analytical data entered into EPA SCRIBE software and make it available for multiple users to access on one site. START-3 personnel will utilize SCRIBE for all data entry on-site and will upload to the Response Manager Analytical module.

7.2.1 Field Documentation

The following field documentation will be maintained as described below.

Field Logbook

The field logbook is a descriptive notebook detailing site activities and observations so that an accurate, factual account of field procedures may be reconstructed. All entries will be signed by the individuals making them. Entries should include, at a minimum, the following:

- Site name and project number.
- Names of personnel on-site.
- Dates and times of all entries.
- Description of all site activities, including site entry and exit times.
- Noteworthy events and discussions.
- Weather conditions.
- Site observations.
- Identification and description of samples and locations.
- Subcontractor information and names of on-site personnel.
- Dates and times of sample collections and chain-of-custody information.
- Records of photographs.
- Site sketches.
- Calibration results.

Sample Labels

Sample labels will be securely affixed to the sample container. The labels will clearly identify the particular sample and include the following information:

- Site name and project number.
- Date and time the sample was collected.
- Sample preservation method.
- Analysis requested.
- Sampling location.

Chain-of-Custody Record

A chain-of-custody will be maintained from the time of sample collection until final deposition. Every transfer of custody will be noted and signed for and a copy of the record will be kept by each individual who has signed it. The chain-of-custody is discussed in Subsection 7.1 Sample Custody Procedures.

Custody Seal

Custody seals demonstrate that a sample container has not been tampered with or opened. The individual who has custody of the samples will sign and date the seal and affix it to the container in such a manner that it cannot be opened without breaking the seal.

Photographic Documentation

START-3 will take photographs to document site conditions and activities as site work progresses. Initial conditions should be well documented by photographing features that define the site-related contamination or special working conditions. Representative photographs should be taken of each type of site activity. The photographs should show typical operations and operating conditions as well as special situations and conditions that may arise during site activities. Site final conditions should also be documented as a record of how the site appeared at completion of the work.

All photographs should be taken with either a film camera or digital camera capable of recording the date on the image. Each photograph will be recorded in the logbook and within Response

Manager with the location of the photographer, direction the photograph was taken, the subject of the photograph, and its significance (i.e., why the picture was taken). Where appropriate, the photograph location, direction, and subject will also be shown on a site sketch and recorded within Response Manager.

7.2.2 Report Preparation

At the completion of the project, START-3 will review and validate all laboratory data and prepare a draft report of field activities and analytical results for EPA OSC review. Draft deliverable documents will be uploaded to the EPA TeamLink website for EPA OSC review and comment.

7.2.3 Response Manager

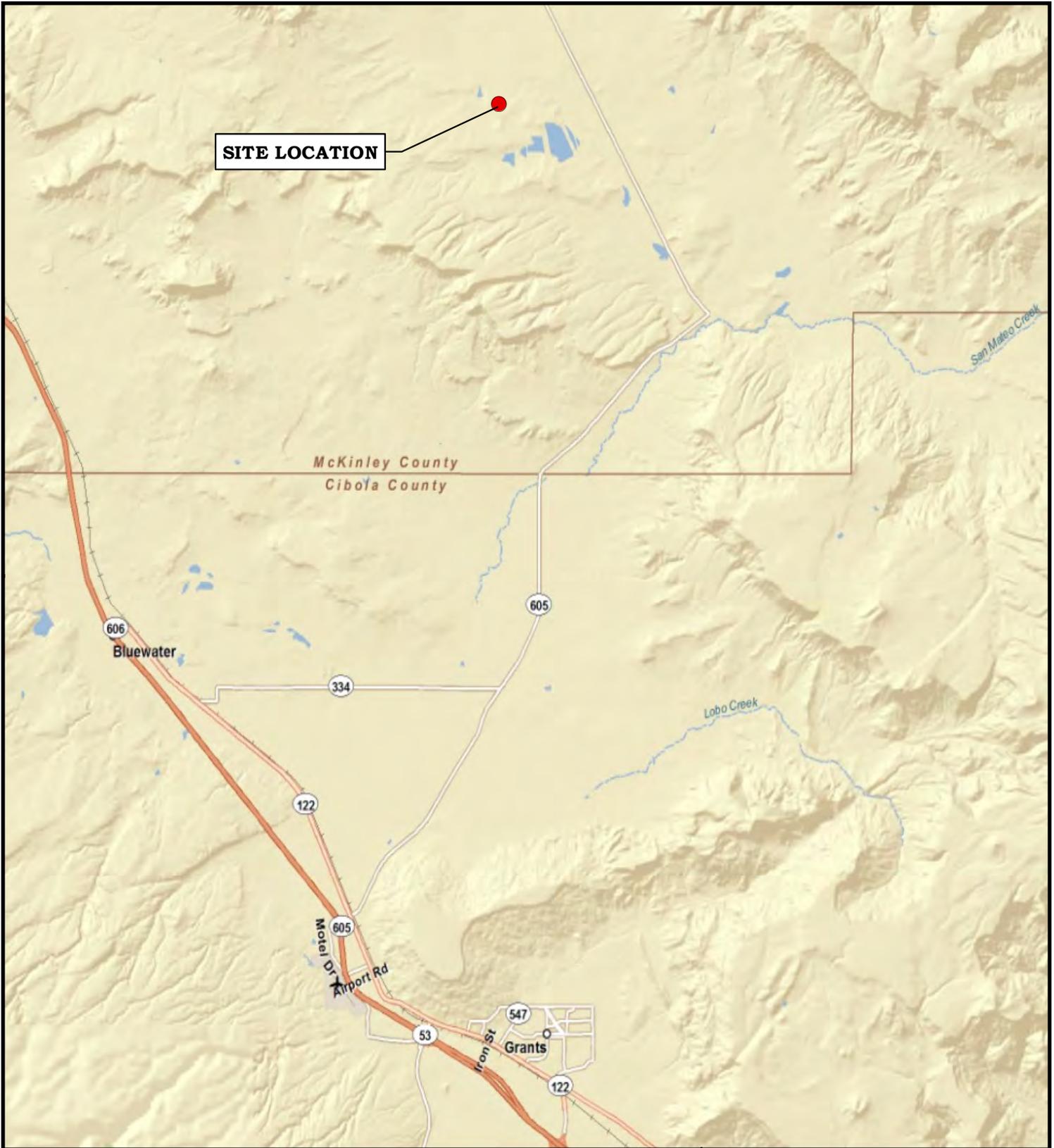
START-3 will use the Response Manager module located on the EPA Web Hub, <https://solutions.westonproject.net/epawebhub/>, to collect and organize the data collected from project activities. The information to be included encompasses some or all of the following depending on the specific project needs:

- General Module – site-specific data including location and type of site. It also includes an area for all key site locations including geo-spatial data associated with the key site locations.
- Emergency Response Module – includes the following sub-modules: Basic Info, HAZMAT, Release, Time Line Log, Incident Zones, Photos, Sensitive Receptors, Evacuations, Source, Cause, and Weather.
- Reconnaissance Module – provides standard templates with the flexibility of adding any additional questions of values to the drop-down lists for targeted reconnaissance efforts. Typically the data in this module is associated with ESF-10 deployments and the clean-up of orphaned containers and hazardous debris, but the module can be utilized for any and all reconnaissance activities.
- Facility Assessment Module – provides standard templates with the flexibility of adding any additional questions of values to the drop-down lists for assessments of structures. Typically utilized for EPA-regulated program facilities during an ESF-10 deployment of resources. This module can be utilized to track the assessment of any facilities including multiple assessments of the fixed facilities.
- Shipping Module – provides standard templates for creating a cradle-to-grave record of all waste shipments from the site until they are recycled or destroyed. This includes the

ability to capture manifest and manifest line items and upload photos/original documents to support the records.

- Container Module – provides standard templates for cataloguing containers including HAZCAT and Layer information in each container. The module also allows for the tracking of which containers are bulked.
- Properties Module – provides standard templates with the flexibility of adding any additional questions of values to the drop-down lists for collection of property data including access agreements and assessments of the property and current status of property with regard to the site removal action.
- Materials Module – provides standard templates for tracking materials that are brought on-site or that are removed from the site.
- Daily Reports – provides standard templates for tracking daily site activities, daily site personnel, and daily site notes for reporting back to the EPA OSC in a POLREP or SITREP.
- HHW Module – provides standard templates with the flexibility of adding any additional questions of values to the drop-down lists for tracking the amount of HHW collected at individual collection stations by HHW type.
- Data Files – data files can be uploaded in the photo module section and be associated with individual records or with the site in general. The meta data associated with that data file can be filled in using the photo log fields.

The data stored in the Response Manager database can be viewed and edited by any individual with access rights to those functions. At any time deemed necessary, POLREPs and/or SITREPs can be generated by exporting the data out of Response Manager into Microsoft Excel/Word. The database is stored on a secure server and backed up regularly.



Legend

- SECTION 12 URANIUM MINE LOCATION



**US EPA REGION 6
START- 3**

FIGURE 1-1
SITE LOCATION MAP
SECTION 12 URANIUM MINE SITE
AMBROSIA LAKE AREA
MCKINLEY COUNTY, NEW MEXICO

TDD NO: TO-0035-11-09-02
CERCLIS NO.: NMN000607185

SOURCE: ESRI STREETMAP USA

DATE
OCT 2011

PROJECT NO
20406.012.035.0673.01

SCALE
AS SHOWN

APPENDIX A

**EPA GUIDANCE DOCUMENTS AND WESTON STANDARD OPERATING
PROCEDURES**



Ground Water Issue

LOW-FLOW (MINIMAL DRAWDOWN) GROUND-WATER SAMPLING PROCEDURES

by Robert W. Puls¹ and Michael J. Barcelona²

Background

The Regional Superfund Ground Water Forum is a group of ground-water scientists, representing EPA's Regional Superfund Offices, organized to exchange information related to ground-water remediation at Superfund sites. One of the major concerns of the Forum is the sampling of ground water to support site assessment and remedial performance monitoring objectives. This paper is intended to provide background information on the development of low-flow sampling procedures and its application under a variety of hydrogeologic settings. It is hoped that the paper will support the production of standard operating procedures for use by EPA Regional personnel and other environmental professionals engaged in ground-water sampling.

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I. Introduction

The methods and objectives of ground-water sampling to assess water quality have evolved over time. Initially the emphasis was on the assessment of water quality of aquifers as sources of drinking water. Large water-bearing

units were identified and sampled in keeping with that objective. These were highly productive aquifers that supplied drinking water via private wells or through public water supply systems. Gradually, with the increasing awareness of subsurface pollution of these water resources, the understanding of complex hydrogeochemical processes which govern the fate and transport of contaminants in the subsurface increased. This increase in understanding was also due to advances in a number of scientific disciplines and improvements in tools used for site characterization and ground-water sampling. Ground-water quality investigations where pollution was detected initially borrowed ideas, methods, and materials for site characterization from the water supply field and water analysis from public health practices. This included the materials and manner in which monitoring wells were installed and the way in which water was brought to the surface, treated, preserved and analyzed. The prevailing conceptual ideas included convenient generalizations of ground-water resources in terms of large and relatively homogeneous hydrologic *units*. With time it became apparent that conventional water supply generalizations of *homogeneity* did not adequately represent field data regarding pollution of these subsurface resources. The important role of *heterogeneity* became increasingly clear not only in geologic terms, but also in terms of complex physical,

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Walter W. Kovalick, Jr., Ph.D.
Director

chemical and biological subsurface processes. With greater appreciation of the role of heterogeneity, it became evident that subsurface pollution was ubiquitous and encompassed the unsaturated zone to the deep subsurface and included unconsolidated sediments, fractured rock, and *aquifers* or low-yielding or impermeable formations. Small-scale processes and heterogeneities were shown to be important in identifying contaminant distributions and in controlling water and contaminant flow paths.

It is beyond the scope of this paper to summarize all the advances in the field of ground-water quality investigations and remediation, but two particular issues have bearing on ground-water sampling today: aquifer heterogeneity and colloidal transport. Aquifer heterogeneities affect contaminant flow paths and include variations in geology, geochemistry, hydrology and microbiology. As methods and the tools available for subsurface investigations have become increasingly sophisticated and understanding of the subsurface environment has advanced, there is an awareness that in most cases a primary concern for site investigations is characterization of contaminant flow paths rather than entire aquifers. In fact, in many cases, plume thickness can be less than well screen lengths (e.g., 3-6 m) typically installed at hazardous waste sites to detect and monitor plume movement over time. Small-scale differences have increasingly been shown to be important and there is a general trend toward smaller diameter wells and shorter screens.

The hydrogeochemical significance of colloidal-size particles in subsurface systems has been realized during the past several years (Gschwend and Reynolds, 1987; McCarthy and Zachara, 1989; Puls, 1990; Ryan and Gschwend, 1990). This realization resulted from both field and laboratory studies that showed faster contaminant migration over greater distances and at higher concentrations than flow and transport model predictions would suggest (Buddemeier and Hunt, 1988; Enfield and Bengtsson, 1988; Penrose et al., 1990). Such models typically account for interaction between the mobile aqueous and immobile solid phases, but do not allow for a mobile, reactive solid phase. It is recognition of this third *phase* as a possible means of contaminant transport that has brought increasing attention to the manner in which samples are collected and processed for analysis (Puls et al., 1990; McCarthy and Degueudre, 1993; Backhus et al., 1993; U. S. EPA, 1995). If such a phase is present in sufficient mass, possesses high sorption reactivity, large surface area, and remains stable in suspension, it can serve as an important mechanism to facilitate contaminant transport in many types of subsurface systems.

Colloids are particles that are sufficiently small so that the surface free energy of the particle dominates the bulk free energy. Typically, in ground water, this includes particles with diameters between 1 and 1000 nm. The most commonly observed mobile particles include: secondary clay minerals; hydrous iron, aluminum, and manganese oxides; dissolved and particulate organic materials, and viruses and bacteria.

These reactive particles have been shown to be mobile under a variety of conditions in both field studies and laboratory column experiments, and as such need to be included in monitoring programs where identification of the *total* mobile contaminant loading (dissolved + naturally suspended particles) at a site is an objective. To that end, sampling methodologies must be used which do not artificially bias *naturally* suspended particle concentrations.

Currently the most common ground-water purging and sampling methodology is to purge a well using bailers or high speed pumps to remove 3 to 5 casing volumes followed by sample collection. This method can cause adverse impacts on sample quality through collection of samples with high levels of turbidity. This results in the inclusion of otherwise immobile artificial particles which produce an overestimation of certain analytes of interest (e.g., metals or hydrophobic organic compounds). Numerous documented problems associated with filtration (Danielsson, 1982; Laxen and Chandler, 1982; Horowitz et al., 1992) make this an undesirable method of rectifying the turbidity problem, and include the removal of potentially mobile (contaminant-associated) particles during filtration, thus artificially biasing contaminant concentrations low. Sampling-induced turbidity problems can often be mitigated by using low-flow purging and sampling techniques.

Current subsurface conceptual models have undergone considerable refinement due to the recent development and increased use of field screening tools. So-called hydraulic *push* technologies (e.g., cone penetrometer, Geoprobe®, QED HydroPunch®) enable relatively fast screening site characterization which can then be used to design and install a monitoring well network. Indeed, alternatives to conventional monitoring wells are now being considered for some hydrogeologic settings. The ultimate design of any monitoring system should however be based upon adequate site characterization and be consistent with established monitoring objectives.

If the sampling program objectives include accurate assessment of the magnitude and extent of subsurface contamination over time and/or accurate assessment of subsequent remedial performance, then some information regarding plume delineation in three-dimensional space is necessary prior to monitoring well network design and installation. This can be accomplished with a variety of different tools and equipment ranging from hand-operated augers to screening tools mentioned above and large drilling rigs. Detailed information on ground-water flow velocity, direction, and horizontal and vertical variability are essential baseline data requirements. Detailed soil and geologic data are required prior to and during the installation of sampling points. This includes historical as well as detailed soil and geologic logs which accumulate during the site investigation. The use of borehole geophysical techniques is also recommended. With this information (together with other site characterization data) and a clear understanding of sampling

objectives, then appropriate location, screen length, well diameter, slot size, etc. for the monitoring well network can be decided. This is especially critical for new in situ remedial approaches or natural attenuation assessments at hazardous waste sites.

In general, the overall goal of any ground-water sampling program is to collect water samples with no alteration in water chemistry; analytical data thus obtained may be used for a variety of specific monitoring programs depending on the regulatory requirements. The sampling methodology described in this paper assumes that the monitoring goal is to sample monitoring wells for the presence of contaminants and it is applicable whether mobile colloids are a concern or not and whether the analytes of concern are metals (and metalloids) or organic compounds.

II. Monitoring Objectives and Design Considerations

The following issues are important to consider prior to the design and implementation of any ground-water monitoring program, including those which anticipate using low-flow purging and sampling procedures.

A. Data Quality Objectives (DQOs)

Monitoring objectives include four main types: detection, assessment, corrective-action evaluation and resource evaluation, along with *hybrid* variations such as site-assessments for property transfers and water availability investigations. Monitoring objectives may change as contamination or water quality problems are discovered. However, there are a number of common components of monitoring programs which should be recognized as important regardless of initial objectives. These components include:

- 1) Development of a conceptual model that incorporates elements of the regional geology to the local geologic framework. The conceptual model development also includes initial site characterization efforts to identify hydrostratigraphic units and likely flow-paths using a minimum number of borings and well completions;
- 2) Cost-effective and well documented collection of high quality data utilizing simple, accurate, and reproducible techniques; and
- 3) Refinement of the conceptual model based on supplementary data collection and analysis.

These fundamental components serve many types of monitoring programs and provide a basis for future efforts that evolve in complexity and level of spatial detail as purposes and objectives expand. High quality, reproducible data collection is a common goal regardless of program objectives.

High quality data collection implies data of sufficient accuracy, precision, and completeness (i.e., ratio of valid analytical results to the minimum sample number called for by the program design) to meet the program objectives. Accuracy depends on the correct choice of monitoring tools and procedures to minimize sample and subsurface disturbance from collection to analysis. Precision depends on the repeatability of sampling and analytical protocols. It can be assured or improved by replication of sample analyses including blanks, field/lab standards and reference standards.

B. Sample Representativeness

An important goal of any monitoring program is collection of data that is truly representative of conditions at the site. The term *representativeness* applies to chemical and hydrogeologic data collected via wells, borings, piezometers, geophysical and soil gas measurements, lysimeters, and temporary sampling points. It involves a recognition of the statistical variability of individual subsurface physical properties, and contaminant or major ion concentration levels, while explaining extreme values. Subsurface temporal and spatial variability are facts. Good professional practice seeks to maximize representativeness by using proven accurate and reproducible techniques to define limits on the distribution of measurements collected at a site. However, measures of representativeness are dynamic and are controlled by evolving site characterization and monitoring objectives. An evolutionary site characterization model, as shown in Figure 1, provides a systematic approach to the goal of consistent data collection.

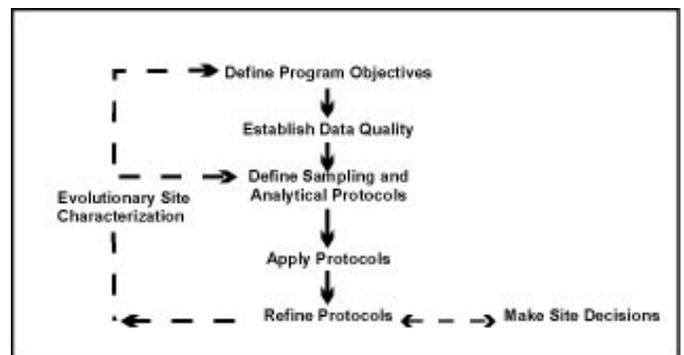


Figure 1. Evolutionary Site Characterization Model

The model emphasizes a recognition of the causes of the variability (e.g., use of inappropriate technology such as using bailers to purge wells; imprecise or operator-dependent methods) and the need to control avoidable errors.

1) Questions of Scale

A sampling plan designed to collect representative samples must take into account the potential scale of changes in site conditions through space and time as well as the chemical associations and behavior of the parameters that are targeted for investigation. In subsurface systems, physical (i.e., aquifer) and chemical properties over time or space are not statistically independent. In fact, samples taken in close proximity (i.e., within distances of a few meters) or within short time periods (i.e., more frequently than monthly) are highly auto-correlated. This means that designs employing high-sampling frequency (e.g., monthly) or dense spatial monitoring designs run the risk of redundant data collection and misleading inferences regarding trends in values that aren't statistically valid. In practice, contaminant detection and assessment monitoring programs rarely suffer these *over-sampling* concerns. In corrective-action evaluation programs, it is also possible that too little data may be collected over space or time. In these cases, false interpretation of the spatial extent of contamination or underestimation of temporal concentration variability may result.

2) Target Parameters

Parameter selection in monitoring program design is most often dictated by the regulatory status of the site. However, background water quality constituents, purging indicator parameters, and contaminants, all represent targets for data collection programs. The tools and procedures used in these programs should be equally rigorous and applicable to all categories of data, since all may be needed to determine or support regulatory action.

C. Sampling Point Design and Construction

Detailed site characterization is central to all decision-making purposes and the basis for this characterization resides in identification of the geologic framework and major hydro-stratigraphic units. Fundamental data for sample point location include: subsurface lithology, head-differences and background geochemical conditions. Each sampling point has a proper use or uses which should be documented at a level which is appropriate for the program's data quality objectives. Individual sampling points may not always be able to fulfill multiple monitoring objectives (e.g., detection, assessment, corrective action).

1) Compatibility with Monitoring Program and Data Quality Objectives

Specifics of sampling point location and design will be dictated by the complexity of subsurface lithology and variability in contaminant and/or geochemical conditions. It should be noted that, regardless of the ground-water sampling approach, few sampling points (e.g., wells, drive-points, screened augers) have zones of influence in excess of a few

feet. Therefore, the spatial frequency of sampling points should be carefully selected and designed.

2) Flexibility of Sampling Point Design

In most cases *well-point* diameters in excess of 1 7/8 inches will permit the use of most types of submersible pumping devices for low-flow (minimal drawdown) sampling. It is suggested that *short* (e.g., less than 1.6 m) screens be incorporated into the monitoring design where possible so that comparable results from one device to another might be expected. *Short*, of course, is relative to the degree of vertical water quality variability expected at a site.

3) Equilibration of Sampling Point

Time should be allowed for equilibration of the well or sampling point with the formation after installation. Placement of well or sampling points in the subsurface produces some disturbance of ambient conditions. Drilling techniques (e.g., auger, rotary, etc.) are generally considered to cause more disturbance than *direct-push* technologies. In either case, there may be a period (i.e., days to months) during which water quality near the point may be distinctly different from that in the formation. Proper development of the sampling point and adjacent formation to remove fines created during emplacement will shorten this water quality *recovery* period.

III. Definition of Low-Flow Purging and Sampling

It is generally accepted that water in the well casing is non-representative of the formation water and needs to be purged prior to collection of ground-water samples. However, the water in the screened interval may indeed be representative of the formation, depending upon well construction and site hydrogeology. Wells are purged to some extent for the following reasons: the presence of the air interface at the top of the water column resulting in an oxygen concentration gradient with depth, loss of volatiles up the water column, leaching from or sorption to the casing or filter pack, chemical changes due to clay seals or backfill, and surface infiltration.

Low-flow purging, whether using portable or dedicated systems, should be done using pump-intake located in the middle or slightly above the middle of the screened interval. Placement of the pump too close to the bottom of the well will cause increased entrainment of solids which have collected in the well over time. These particles are present as a result of well development, prior purging and sampling events, and natural colloidal transport and deposition. Therefore, placement of the pump in the middle or toward the top of the screened interval is suggested. Placement of the pump at the top of the water column for sampling is only recommended in unconfined aquifers, screened across the water table, where this is the desired sampling point. Low-

flow purging has the advantage of minimizing mixing between the overlying stagnant casing water and water within the screened interval.

A. Low-Flow Purging and Sampling

Low-flow refers to the velocity with which water enters the pump intake and that is imparted to the formation pore water in the immediate vicinity of the well screen. It does not necessarily refer to the flow rate of water discharged at the surface which can be affected by flow regulators or restrictions. Water level drawdown provides the best indication of the stress imparted by a given flow-rate for a given hydrological situation. The objective is to pump in a manner that minimizes stress (drawdown) to the system to the extent practical taking into account established site sampling objectives. Typically, flow rates on the order of 0.1 - 0.5 L/min are used, however this is dependent on site-specific hydrogeology. Some extremely coarse-textured formations have been successfully sampled in this manner at flow rates to 1 L/min. The effectiveness of using low-flow purging is intimately linked with proper screen location, screen length, and well construction and development techniques. The reestablishment of natural flow paths in both the vertical and horizontal directions is important for correct interpretation of the data. For high resolution sampling needs, screens less than 1 m should be used. Most of the need for purging has been found to be due to passing the sampling device through the overlying casing water which causes mixing of these stagnant waters and the dynamic waters within the screened interval. Additionally, there is disturbance to suspended sediment collected in the bottom of the casing and the displacement of water out into the formation immediately adjacent to the well screen. These disturbances and impacts can be avoided using dedicated sampling equipment, which precludes the need to insert the sampling device prior to purging and sampling.

Isolation of the screened interval water from the overlying stagnant casing water may be accomplished using low-flow minimal drawdown techniques. If the pump intake is located within the screened interval, most of the water pumped will be drawn in directly from the formation with little mixing of casing water or disturbance to the sampling zone. However, if the wells are not constructed and developed properly, zones other than those intended may be sampled. At some sites where geologic heterogeneities are sufficiently different within the screened interval, higher conductivity zones may be preferentially sampled. This is another reason to use shorter screened intervals, especially where high spatial resolution is a sampling objective.

B. Water Quality Indicator Parameters

It is recommended that water quality indicator parameters be used to determine purging needs prior to sample collection in each well. Stabilization of parameters such as pH, specific conductance, dissolved oxygen, oxida-

tion-reduction potential, temperature and turbidity should be used to determine when formation water is accessed during purging. In general, the order of stabilization is pH, temperature, and specific conductance, followed by oxidation-reduction potential, dissolved oxygen and turbidity. Temperature and pH, while commonly used as purging indicators, are actually quite insensitive in distinguishing between formation water and stagnant casing water; nevertheless, these are important parameters for data interpretation purposes and should also be measured. Performance criteria for determination of stabilization should be based on water-level drawdown, pumping rate and equipment specifications for measuring indicator parameters. Instruments are available which utilize in-line flow cells to continuously measure the above parameters.

It is important to establish specific well stabilization criteria and then consistently follow the same methods thereafter, particularly with respect to drawdown, flow rate and sampling device. Generally, the time or purge volume required for parameter stabilization is independent of well depth or well volumes. Dependent variables are well diameter, sampling device, hydrogeochemistry, pump flow rate, and whether the devices are used in a portable or dedicated manner. If the sampling device is already in place (i.e., dedicated sampling systems), then the time and purge volume needed for stabilization is much shorter. Other advantages of dedicated equipment include less purge water for waste disposal, much less decontamination of equipment, less time spent in preparation of sampling as well as time in the field, and more consistency in the sampling approach which probably will translate into less variability in sampling results. The use of dedicated equipment is strongly recommended at wells which will undergo routine sampling over time.

If parameter stabilization criteria are too stringent, then minor oscillations in indicator parameters may cause purging operations to become unnecessarily protracted. It should also be noted that turbidity is a very conservative parameter in terms of stabilization. Turbidity is always the last parameter to stabilize. Excessive purge times are invariably related to the establishment of too stringent turbidity stabilization criteria. It should be noted that natural turbidity levels in ground water may exceed 10 nephelometric turbidity units (NTU).

C. Advantages and Disadvantages of Low-Flow (Minimum Drawdown) Purging

In general, the advantages of low-flow purging include:

- samples which are representative of the *mobile* load of contaminants present (dissolved and colloid-associated);
- minimal disturbance of the sampling point thereby minimizing sampling artifacts;
- less operator variability, greater operator control;

- reduced stress on the formation (minimal drawdown);
- less mixing of stagnant casing water with formation water;
- reduced need for filtration and, therefore, less time required for sampling;
- smaller purging volume which decreases waste disposal costs and sampling time;
- better sample consistency; reduced artificial sample variability.

Some disadvantages of low-flow purging are:

- higher initial capital costs,
- greater set-up time in the field,
- need to transport additional equipment to and from the site,
- increased training needs,
- resistance to change on the part of sampling practitioners,
- concern that new data will indicate a *change in conditions* and trigger an *action*.

IV. Low-Flow (Minimal Drawdown) Sampling Protocols

The following ground-water sampling procedure has evolved over many years of experience in ground-water sampling for organic and inorganic compound determinations and as such summarizes the authors' (and others) experiences to date (Barcelona et al., 1984, 1994; Barcelona and Helfrich, 1986; Puls and Barcelona, 1989; Puls et. al. 1990, 1992; Puls and Powell, 1992; Puls and Paul, 1995). High-quality chemical data collection is essential in ground-water monitoring and site characterization. The primary limitations to the collection of *representative* ground-water samples include: mixing of the stagnant casing and *fresh* screen waters during insertion of the sampling device or ground-water level measurement device; disturbance and resuspension of settled solids at the bottom of the well when using high pumping rates or raising and lowering a pump or bailer; introduction of atmospheric gases or degassing from the water during sample handling and transfer, or inappropriate use of vacuum sampling device, etc.

A. Sampling Recommendations

Water samples should not be taken immediately following well development. Sufficient time should be allowed for the ground-water flow regime in the vicinity of the monitoring well to stabilize and to approach chemical equilibrium with the well construction materials. This lag time will depend on site conditions and methods of installation but often exceeds one week.

Well purging is nearly always necessary to obtain samples of water flowing through the geologic formations in the screened interval. Rather than using a general but arbitrary guideline of purging three casing volumes prior to

sampling, it is recommended that an in-line water quality measurement device (e.g., flow-through cell) be used to establish the stabilization time for several parameters (e.g., pH, specific conductance, redox, dissolved oxygen, turbidity) on a well-specific basis. Data on pumping rate, drawdown, and volume required for parameter stabilization can be used as a guide for conducting subsequent sampling activities.

The following are recommendations to be considered before, during and after sampling:

- use low-flow rates (<0.5 L/min), during both purging and sampling to maintain minimal drawdown in the well;
- maximize tubing wall thickness, minimize tubing length;
- place the sampling device intake at the desired sampling point;
- minimize disturbances of the stagnant water column above the screened interval during water level measurement and sampling device insertion;
- make proper adjustments to stabilize the flow rate as soon as possible;
- monitor water quality indicators during purging;
- collect unfiltered samples to estimate contaminant loading and transport potential in the subsurface system.

B. Equipment Calibration

Prior to sampling, all sampling device and monitoring equipment should be calibrated according to manufacturer's recommendations and the site Quality Assurance Project Plan (QAPP) and Field Sampling Plan (FSP). Calibration of pH should be performed with at least two buffers which bracket the expected range. Dissolved oxygen calibration must be corrected for local barometric pressure readings and elevation.

C. Water Level Measurement and Monitoring

It is recommended that a device be used which will least disturb the water surface in the casing. Well depth should be obtained from the well logs. Measuring to the bottom of the well casing will only cause resuspension of settled solids from the formation and require longer purging times for turbidity equilibration. Measure well depth after sampling is completed. The water level measurement should be taken from a permanent reference point which is surveyed relative to ground elevation.

D. Pump Type

The use of low-flow (e.g., 0.1-0.5 L/min) pumps is suggested for purging and sampling all types of analytes. All pumps have some limitation and these should be investigated with respect to application at a particular site. Bailers are inappropriate devices for low-flow sampling.

1) General Considerations

There are no unusual requirements for ground-water sampling devices when using low-flow, minimal drawdown techniques. The major concern is that the device give consistent results and minimal disturbance of the sample across a range of *low* flow rates (i.e., < 0.5 L/min). Clearly, pumping rates that cause minimal to no drawdown in one well could easily cause *significant* drawdown in another well finished in a less transmissive formation. In this sense, the pump should not cause undue pressure or temperature changes or physical disturbance on the water sample over a reasonable sampling range. Consistency in operation is critical to meet accuracy and precision goals.

2) Advantages and Disadvantages of Sampling Devices

A variety of sampling devices are available for low-flow (minimal drawdown) purging and sampling and include peristaltic pumps, bladder pumps, electrical submersible pumps, and gas-driven pumps. Devices which lend themselves to both dedication and consistent operation at definable low-flow rates are preferred. It is desirable that the pump be easily adjustable and operate reliably at these lower flow rates. The peristaltic pump is limited to shallow applications and can cause degassing resulting in alteration of pH, alkalinity, and some volatiles loss. Gas-driven pumps should be of a type that does not allow the gas to be in direct contact with the sampled fluid.

Clearly, bailers and other *grab* type samplers are ill-suited for low-flow sampling since they will cause repeated disturbance and mixing of *stagnant* water in the casing and the *dynamic* water in the screened interval. Similarly, the use of inertial lift foot-valve type samplers may cause too much disturbance at the point of sampling. Use of these devices also tends to introduce uncontrolled and unacceptable operator variability.

Summaries of advantages and disadvantages of various sampling devices are listed in Herzog et al. (1991), U. S. EPA (1992), Parker (1994) and Thurnblad (1994).

E. Pump Installation

Dedicated sampling devices (left in the well) capable of pumping and sampling are preferred over any other type of device. Any portable sampling device should be slowly and carefully lowered to the middle of the screened interval or slightly above the middle (e.g., 1-1.5 m below the top of a 3 m screen). This is to minimize excessive mixing of the stagnant water in the casing above the screen with the screened interval zone water, and to minimize resuspension of solids which will have collected at the bottom of the well. These two disturbance effects have been shown to directly affect the time required for purging. There also appears to be a direct correlation between size of portable sampling devices relative to the well bore and resulting purge volumes and times. The key is to minimize disturbance of water and solids in the well casing.

F. Filtration

Decisions to filter samples should be dictated by sampling objectives rather than as a *fix* for poor sampling practices, and field-filtration of certain constituents should not be the default. Consideration should be given as to what the application of field-filtration is trying to accomplish. For assessment of truly dissolved (as opposed to operationally *dissolved* [i.e., samples filtered with 0.45 µm filters]) concentrations of major ions and trace metals, 0.1 µm filters are recommended although 0.45 µm filters are normally used for most regulatory programs. Alkalinity samples must also be filtered if significant particulate calcium carbonate is suspected, since this material is likely to impact alkalinity titration results (although filtration itself may alter the CO₂ composition of the sample and, therefore, affect the results).

Although filtration may be appropriate, filtration of a sample may cause a number of unintended changes to occur (e.g. oxidation, aeration) possibly leading to filtration-induced artifacts during sample analysis and uncertainty in the results. Some of these unintended changes may be unavoidable but the factors leading to them must be recognized. Deleterious effects can be minimized by consistent application of certain filtration guidelines. Guidelines should address selection of filter type, media, pore size, etc. in order to identify and minimize potential sources of uncertainty when filtering samples.

In-line filtration is recommended because it provides better consistency through less sample handling, and minimizes sample exposure to the atmosphere. In-line filters are available in both disposable (barrel filters) and non-disposable (in-line filter holder, flat membrane filters) formats and various filter pore sizes (0.1-5.0 µm). Disposable filter cartridges have the advantage of greater sediment handling capacity when compared to traditional membrane filters. Filters must be pre-rinsed following manufacturer's recommendations. If there are no recommendations for rinsing, pass through a minimum of 1 L of ground water following purging and prior to sampling. Once filtration has begun, a filter cake may develop as particles larger than the pore size accumulate on the filter membrane. The result is that the effective pore diameter of the membrane is reduced and particles smaller than the stated pore size are excluded from the filtrate. Possible corrective measures include prefiltering (with larger pore size filters), minimizing particle loads to begin with, and reducing sample volume.

G. Monitoring of Water Level and Water Quality Indicator Parameters

Check water level periodically to monitor drawdown in the well as a guide to flow rate adjustment. The goal is minimal drawdown (<0.1 m) during purging. This goal may be difficult to achieve under some circumstances due to geologic heterogeneities within the screened interval, and may require adjustment based on site-specific conditions and personal experience. In-line water quality indicator parameters should be continuously monitored during purging. The water quality

indicator parameters monitored can include pH, redox potential, conductivity, dissolved oxygen (DO) and turbidity. The last three parameters are often most sensitive. Pumping rate, drawdown, and the time or volume required to obtain stabilization of parameter readings can be used as a future guide to purge the well. Measurements should be taken every three to five minutes if the above suggested rates are used. Stabilization is achieved after all parameters have stabilized for three successive readings. In lieu of measuring all five parameters, a minimum subset would include pH, conductivity, and turbidity or DO. Three successive readings should be within ± 0.1 for pH, $\pm 3\%$ for conductivity, ± 10 mv for redox potential, and $\pm 10\%$ for turbidity and DO. Stabilized purge indicator parameter trends are generally obvious and follow either an exponential or asymptotic change to stable values during purging. Dissolved oxygen and turbidity usually require the longest time for stabilization. The above stabilization guidelines are provided for rough estimates based on experience.

H. Sampling, Sample Containers, Preservation and Decontamination

Upon parameter stabilization, sampling can be initiated. If an in-line device is used to monitor water quality parameters, it should be disconnected or bypassed during sample collection. Sampling flow rate may remain at established purge rate or may be adjusted slightly to minimize aeration, bubble formation, turbulent filling of sample bottles, or loss of volatiles due to extended residence time in tubing. Typically, flow rates less than 0.5 L/min are appropriate. The same device should be used for sampling as was used for purging. Sampling should occur in a progression from least to most contaminated well, if this is known. Generally, volatile (e.g., solvents and fuel constituents) and gas sensitive (e.g., Fe^{2+} , CH_4 , $\text{H}_2\text{S}/\text{HS}^-$; alkalinity) parameters should be sampled first. The sequence in which samples for most inorganic parameters are collected is immaterial unless filtered (dissolved) samples are desired. Filtering should be done last and in-line filters should be used as discussed above. During both well purging and sampling, proper protective clothing and equipment must be used based upon the type and level of contaminants present.

The appropriate sample container will be prepared in advance of actual sample collection for the analytes of interest and include sample preservative where necessary. Water samples should be collected directly into this container from the pump tubing.

Immediately after a sample bottle has been filled, it must be preserved as specified in the site (QAPP). Sample preservation requirements are based on the analyses being performed (use site QAPP, FSP, RCRA guidance document [U. S. EPA, 1992] or EPA SW-846 [U. S. EPA, 1982]). It may be advisable to add preservatives to sample bottles in a controlled setting prior to entering the field in order to reduce the chances of improperly preserving sample bottles or

introducing field contaminants into a sample bottle while adding the preservatives.

The preservatives should be transferred from the chemical bottle to the sample container using a disposable polyethylene pipet and the disposable pipet should be used only once and then discarded.

After a sample container has been filled with ground water, a Teflon™ (or tin)-lined cap is screwed on tightly to prevent the container from leaking. A sample label is filled out as specified in the FSP. The samples should be stored inverted at 4°C.

Specific decontamination protocols for sampling devices are dependent to some extent on the type of device used and the type of contaminants encountered. Refer to the site QAPP and FSP for specific requirements.

I. Blanks

The following blanks should be collected:

- (1) field blank: one field blank should be collected from each source water (distilled/deionized water) used for sampling equipment decontamination or for assisting well development procedures.
- (2) equipment blank: one equipment blank should be taken prior to the commencement of field work, from each set of sampling equipment to be used for that day. Refer to site QAPP or FSP for specific requirements.
- (3) trip blank: a trip blank is required to accompany each volatile sample shipment. These blanks are prepared in the laboratory by filling a 40-mL volatile organic analysis (VOA) bottle with distilled/deionized water.

V. Low-Permeability Formations and Fractured Rock

The overall sampling program goals or sampling objectives will drive how the sampling points are located, installed, and choice of sampling device. Likewise, site-specific hydrogeologic factors will affect these decisions. Sites with very low permeability formations or fractures causing discrete flow channels may require a unique monitoring approach. Unlike water supply wells, wells installed for ground-water quality assessment and restoration programs are often installed in low water-yielding settings (e.g., clays, silts). Alternative types of sampling points and sampling methods are often needed in these types of environments, because low-permeability settings may require extremely low-flow purging (<0.1 L/min) and may be technology-limited. Where devices are not readily available to pump at such low flow rates, the primary consideration is to avoid dewatering of

the well screen. This may require repeated recovery of the water during purging while leaving the pump in place within the well screen.

Use of low-flow techniques may be impractical in these settings, depending upon the water recharge rates. The sampler and the end-user of data collected from such wells need to understand the limitations of the data collected; i.e., a strong potential for underestimation of actual contaminant concentrations for volatile organics, potential false negatives for filtered metals and potential false positives for unfiltered metals. It is suggested that comparisons be made between samples recovered using low-flow purging techniques and samples recovered using passive sampling techniques (i.e., two sets of samples). Passive sample collection would essentially entail acquisition of the sample with no or very little purging using a dedicated sampling system installed within the screened interval or a passive sample collection device.

A. Low-Permeability Formations (<0.1 L/min recharge)

1. Low-Flow Purging and Sampling with Pumps

- a. "portable or non-dedicated mode" - Lower the pump (one capable of pumping at <0.1 L/min) to mid-screen or slightly above and set in place for minimum of 48 hours (to lessen purge volume requirements). After 48 hours, use procedures listed in Part IV above regarding monitoring water quality parameters for stabilization, etc., but do not dewater the screen. If excessive drawdown and slow recovery is a problem, then alternate approaches such as those listed below may be better.
- b. "dedicated mode" - Set the pump as above at least a week prior to sampling; that is, operate in a dedicated pump mode. With this approach significant reductions in purge volume should be realized. Water quality parameters should stabilize quite rapidly due to less disturbance of the sampling zone.

2. Passive Sample Collection

Passive sampling collection requires insertion of the device into the screened interval for a sufficient time period to allow flow and sample equilibration before extraction for analysis. Conceptually, the extraction of water from low yielding formations seems more akin to the collection of water from the unsaturated zone and passive sampling techniques may be more appropriate in terms of obtaining "representative" samples. Satisfying usual sample volume requirements is typically a problem with this approach and some latitude will be needed on the part of regulatory entities to achieve sampling objectives.

B. Fractured Rock

In fractured rock formations, a low-flow to zero purging approach using pumps in conjunction with packers to isolate the sampling zone in the borehole is suggested. Passive multi-layer sampling devices may also provide the most "representative" samples. It is imperative in these settings to identify flow paths or water-producing fractures prior to sampling using tools such as borehole flowmeters and/or other geophysical tools.

After identification of water-bearing fractures, install packer(s) and pump assembly for sample collection using low-flow sampling in "dedicated mode" or use a passive sampling device which can isolate the identified water-bearing fractures.

VI. Documentation

The usual practices for documenting the sampling event should be used for low-flow purging and sampling techniques. This should include, at a minimum: information on the conduct of purging operations (flow-rate, drawdown, water-quality parameter values, volumes extracted and times for measurements), field instrument calibration data, water sampling forms and chain of custody forms. See Figures 2 and 3 and "Ground Water Sampling Workshop -- A Workshop Summary" (U. S. EPA, 1995) for example forms and other documentation suggestions and information. This information coupled with laboratory analytical data and validation data are needed to judge the "useability" of the sampling data.

VII. Notice

The U.S. Environmental Protection Agency through its Office of Research and Development funded and managed the research described herein as part of its in-house research program and under Contract No. 68-C4-0031 to Dynamac Corporation. It has been subjected to the Agency's peer and administrative review and has been approved for publication as an EPA document. Mention of trade names or commercial products does not constitute endorsement or recommendation for use.

VIII. References

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Figure 2. Ground Water Sampling Log

Project _____ Site _____ Well No. _____ Date _____

Well Depth _____ Screen Length _____ Well Diameter _____ Casing Type _____

Sampling Device _____ Tubing type _____ Water Level _____

Measuring Point _____ Other Infor _____

Sampling Personnel _____

Time	pH	Temp	Cond.	Dis.O ₂	Turb.	[] Conc			Notes

Type of Samples Collected _____

Information: 2 in = 617 ml/ft, 4 in = 2470 ml/ft: Vol_{cyl} = πr²h, Vol_{sphere} = 4/3π r³

Figure 3. **Ground Water Sampling Log** (with automatic data logging for most water quality parameters)

Project _____ Site _____ Well No. _____ Date _____
Well Depth _____ Screen Length _____ Well Diameter _____ Casing Type _____
Sampling Device _____ Tubing type _____ Water Level _____
Measuring Point _____ Other Infor _____

Sampling Personnel _____

Time	Pump Rate	Turbidity	Alkalinity	[] Conc	Notes

Type of Samples Collected

Information: 2 in = 617 ml/ft, 4 in = 2470 ml/ft: $Vol_{cyl} = \pi r^2 h$, $Vol_{sphere} = 4/3 \pi r^3$

SOP	1001.01				
GROUP	Sampling Procedures				
SUB-GROUP	Soil Sampling Procedures				
TITLE	Surface Soil Sampling				
DATE	11/19/2001	FILE	1001-01.DOC	PAGE	1 of 3

INTRODUCTION

The following Standard Operating Procedure (SOP) is to describe the procedures for collecting representative soil samples. Analysis of soil samples may determine whether concentrations of specific soil pollutants exceed established action levels, or if the concentrations of soil pollutants present a risk to public health, welfare, or the environment. This SOP is similar to SOP Number 1001.03 for collecting near surface soil samples with a hand auger.

PROCEDURE

Surface soil samples may be collected using a variety of methods and equipment. The methods and equipment used are dependent on the depth of the desired sample, the type of sample required (disturbed versus undisturbed), and the type of soil. Near-surface soils may be easily sampled using a spade, trowel, or hand scoop.

Sample Preservation

Cooling to 4°C ± 2°C, supplemented by a minimal holding time, is suggested.

Interferences and Potential Problems

There are two primary interferences or potential problems associated with soil sampling: cross-contamination of samples and improper sample collection. Cross-contamination problems can be eliminated or minimized through the use of dedicated (disposable) sampling equipment. If this is not possible or practical, then decontamination of sampling equipment is necessary. Improper sample collection can involve using contaminated equipment, disturbance of the matrix resulting in compaction of the sample, or inadequate homogenization of the samples where required, resulting in variable, non-representative results. Homogenization may also affect sample representativeness where the analytical requirements include volatile organic compounds.

Equipment or Apparatus

The equipment used for sampling may be selected from the following list, as appropriate:

- Tape measure
- Survey stakes or flags
- Stainless steel, plastic, or other appropriate homogenization bucket or bowl
- Ziploc plastic bags
- Logbook
- Labels
- Chain-of-custody forms and seals
- Coolers
- Ice
- Decontamination supplies and equipment
- Canvas or plastic sheet
- Spatulas/spades/shovels
- Scoops

SOP	1001.01				
GROUP	Sampling Procedures				
SUB-GROUP	Soil Sampling Procedures				
TITLE	Surface Soil Sampling				
DATE	11/19/2001	FILE	1001-01.DOC	PAGE	2 of 3

- Plastic or stainless steel spoons
- Trowel

Preparation

1. Determine the extent of the sampling effort, the sampling methods to be employed, and what equipment and supplies are required.
2. Obtain necessary sampling and monitoring equipment from the list above.
3. Prepare schedules, and coordinate with staff, client, and regulatory agencies, if appropriate.
4. Perform a general site survey prior to site entry in accordance with the site-specific health and safety plan.
5. Decontaminate or pre-clean equipment, and ensure that it is in working order.
6. Use stakes, buoys, or flagging to identify and mark all sampling locations. Consider specific site factors, including extent and nature of contaminant, when selecting sample locations. If required, the proposed locations may be adjusted based on site access, property boundaries, and surface obstructions. All staked locations will be utility-cleared by the property owner or other responsible party prior to soil sampling.
7. Evaluate safety concerns associated with sampling that may require use of personal protective equipment and/or air monitoring.

Surface Soil Sample Collection

Collect samples from the near-surface soil with tools such as spades, shovels, and scoops. Surface material can be removed to the required depth with this equipment, then a stainless steel or plastic scoop can be used to collect the sample. The use of a flat, pointed mason trowel to cut a block of the desired soil can be helpful when undisturbed profiles are required. A stainless steel scoop, lab spoon, or plastic spoon will suffice in most other applications. Avoid the use of devices plated with chrome or other target analyte materials.

The following procedures should be followed when collecting surface soil samples:

1. Carefully remove the top layer of soil or debris to the desired sample depth with a pre-cleaned spade.
2. Using a pre-cleaned, stainless steel scoop, plastic spoon, or trowel, remove and discard a thin layer of soil from the area which came in contact with the spade.
3. If volatile organic analysis is to be performed, transfer a portion of the sample directly into an appropriate, labeled sample container(s) with a stainless steel lab spoon, plastic lab spoon, or equivalent and secure the cap(s) tightly. Place the remainder of the sample into a stainless steel, plastic, or other appropriate homogenization container, and mix thoroughly to obtain a homogenous sample representative of the entire sampling interval. Then, either place the sample into an appropriate, labeled container(s) and secure the cap(s) tightly; or if composite samples are to be collected, place a sample from another sampling interval into the

SOP	1001.01				
GROUP	Sampling Procedures				
SUB-GROUP	Soil Sampling Procedures				
TITLE	Surface Soil Sampling				
DATE	11/19/2001	FILE	1001-01.DOC	PAGE	3 of 3

- homogenization container and mix thoroughly. When compositing is complete, place the sample into appropriate, labeled container(s) and secure the cap(s) tightly.
4. Fill hole created through sampling with unused material or other appropriate backfill material (sand).
 5. Record applicable information into field log book or appropriate forms as documentation of sampling.

SOP	1002.01				
GROUP	Sampling Procedures				
SUB-GROUP	Surface Water				
TITLE	Surface Water Sampling				
DATE	11/19/2001	FILE	1002-01.DOC	PAGE	1 of 3

INTRODUCTION

The following Standard Operating Procedure (SOP) is to describe the procedures for collecting representative surface water samples. Analysis of surface samples may determine whether concentrations of specific soil pollutants exceed established action levels, or if the concentrations of pollutants present a risk to public health, welfare, or the environment.

PROCEDURE

Surface water samples may be collected using a variety of methods and equipment. The methods and equipment used are usually dependent on the location of the body of water being sampled. Sampling can be performed by merely submerging the sample container, a weighted-bottle sampler with stopper, a bailer, or by pump assisted methods. Several types of pumps can be used for sampling depending on the objectives of sampling and the site conditions.

Sample Preservation

Samples are to be preserved in conformance with the site-specific Quality Assurance Project Plan, Sampling and Analysis Plan or work plan. In general these requirements include refrigeration to 4°C, addition of appropriate additives (HCl, H₂SO₄, NaOH) to adjust and fix pH, and a defined maximum holding time. If a site-specific plan is not available, the analytical laboratory should be consulted for the appropriate preservation procedures.

Interferences and Potential Problems

There are two primary interferences or potential problems associated with surface water sampling: cross-contamination of samples and improper sample collection. Cross-contamination problems can be eliminated or minimized through the use of dedicated sampling equipment. If this is not possible or practical, then decontamination of sampling equipment is necessary. Improper sample collection can involve using contaminated equipment, undue disturbance of the sample matrix, or improper sample location.

Equipment or Apparatus

- Ziploc plastic bags
- Logbook
- Labels
- Chain-of-custody forms and seals
- Coolers
- Ice
- Decontamination supplies and equipment
- Discharge tubing
- Sample containers
- Sampling devices

SOP	1002.01				
GROUP	Sampling Procedures				
SUB-GROUP	Surface Water				
TITLE	Surface Water Sampling				
DATE	11/19/2001	FILE	1002-01.DOC	PAGE	2 of 3

Preparation

1. Determine the extent of the sampling effort, the sampling methods to be employed, and which equipment and supplies are required.
2. Obtain necessary sampling and monitoring equipment.
3. Decontaminate or preclean equipment, and ensure that it is in working order.
4. Prepare schedules, and coordinate with staff, client, and regulatory agencies, if appropriate.
5. Perform a general site survey prior to site entry in accordance with the site-specific health and safety plan.

Surface Water Sampling

Samples from shallow depths can be readily collected by merely submerging the sample container. In flowing surface water bodies, the container's mouth should be positioned so that it faces upstream, while the sampling personnel stand downstream so as not to stir up sediment that could potentially contaminate the sample.

Collecting a representative sample from a larger body of surface water requires that samples be collected near the shore unless boats are feasible and permitted. If boats are used, the body of water should be cross sectioned, and samples should be collected at various depths across the body of water in accordance with the specified sampling plan. For this type of sampling, a weighted-bottle sampler is used to collect samples at a predetermined depth. The sampler consists of a glass bottle, a weighted sinker, a bottle stopper, and a line that is used to open the bottle and to lower and raise the sampler during sampling. The procedure for use is as follows:

- Assemble the weighted bottle sampler.
- Gently lower the sampler to the desired depth so as not to remove the stopper prematurely.
- Pull out the stopper with a sharp jerk of the sampler line.
- Allow the bottle to fill completely, as evidenced by the cessation of air bubbles.
- Raise the sampler and cap the bottle.
- Wipe the bottle clean. The sampling bottle can be also be used as the sample container for shipping.

Teflon bailers have also been used where feasible for collecting samples in deep bodies of water.

SOP	1002.01				
GROUP	Sampling Procedures				
SUB-GROUP	Surface Water				
TITLE	Surface Water Sampling				
DATE	11/19/2001	FILE	1002-01.DOC	PAGE	3 of 3

Another method of extending the reach of sampling efforts is the use of a small peristaltic pump. In this method the sample is drawn through heavy-wall Teflon tubing and pumped directly into the sample container. This system allows the operator to reach into the liquid body, sample from depth, or sweep the width of narrow streams.

The general sampling procedures are listed below:

1. Collect the sample using whichever technique, submerged bottle, bottle sampler with stopper, pump & tubing, or bailer.
2. The collected sample may be collected in the sample containers or may be transferred to the appropriate sample containers in order of the volatile organics first and inorganics last.
3. Label sample containers, place on ice in a cooler, remove, and decontaminate equipment as necessary.

REFERENCES

SOP 0110.01 Sample Nomenclature
SOP 1005.01 Field Duplicate Collection
SOP 1005.02 Rinse Blank Preparation
SOP 1005.03 Field Blank Preparation
SOP 1101.01 Sample Custody - Field
SOP 1102.01 Sample Shipping
SOP 1201.01 Sampling Equipment Decontamination
SOP 1501.01 Field Logbook

SOP	1002.04				
GROUP	Sampling Procedures				
SUB-GROUP	Soil Sampling Procedures				
TITLE	Sediment Sampling				
DATE	2/6/2009	FILE	1002-04.DOC	PAGE	1 of 3

INTRODUCTION

The following Standard Operating Procedure (SOP) is to describe the procedures for collecting representative sediment samples using a trowel, piston corer, WILDSCO KB Core Sampler, a Ponar Grab Sampler, or other similar equipment. Analysis of sediment samples may be performed to determine whether concentrations of specific sediment pollutants exceed established action levels, or if the concentrations of sediment pollutants present a risk to public health, welfare, or the environment.

PROCEDURE

Overview

Sediment samples may be collected using trowels, core and Ponar sampler, or a variety of similar methods and equipment. The methods and equipment used are dependent on the depth of the desired sample, the type of sample required (disturbed versus undisturbed), and the type of sediment (fines versus coarse). Sampling in shallow areas or streams near the surface may only require a hand trowel, while sampling at depth may be performed using a core or Ponar sampler.

Sample Preservation

Refrigeration to $4^{\circ}\text{C} \pm 2^{\circ}\text{C}$, supplemented by a minimal holding time, is suggested.

Interferences and Potential Problems

There are two primary interferences or potential problems associated with sediment sampling: cross-contamination of samples and improper sample collection. Cross-contamination problems can be eliminated or minimized through the use of dedicated (disposable) sampling equipment. If this is not possible or practical, then decontamination of sampling equipment is necessary. Improper sample collection can involve using contaminated equipment, disturbance of the matrix resulting in mixing of the sample, or inadequate homogenization of the samples where required, resulting in variable, non-representative results. Homogenization may also affect sample representativeness when the analytical requirements include volatile organic compounds.

Equipment or Apparatus

The equipment selected for the sampling effort may include the following as appropriate:

- Tape measure
- Survey stakes or flags
- Stainless steel, plastic, or other appropriate homogenization bucket or bowl
- Ziploc plastic bags
- Logbook
- Labels
- Chain-of-custody forms and seals
- Coolers
- Ice

SOP	1002.04				
GROUP	Sampling Procedures				
SUB-GROUP	Soil Sampling Procedures				
TITLE	Sediment Sampling				
DATE	2/6/2009	FILE	1002-04.DOC	PAGE	2 of 3

- Decontamination supplies and equipment (i.e. brushes and buckets)
- Canvas or plastic sheeting
- Spatulas
- Scoops
- Plastic or stainless steel spoons
- Trowel
- Auger bucket
- Extension rods
- T-handle
- KB Core Sampler
- Ponar Grab Sampler
- Air monitor

Preparation

1. Determine the extent of the sampling effort, the sampling methods to be employed, and which equipment and supplies are required.
2. Obtain necessary sampling and monitoring equipment from the list above. Additional equipment may be added to this list as appropriate to perform other sampling.
3. Decontaminate or preclean equipment, and ensure that it is in working order.
4. Perform a general site survey prior to site entry in accordance with the site-specific health and safety plan.
5. Use stakes, buoys, or flagging to identify and mark all sampling locations. Consider specific site factors, including extent and nature of contaminant, when selecting sample locations. If required, the proposed locations may be adjusted based on site access, property boundaries, and obstructions.

Sediment Sampling in Shallow Waters

The following procedures should be used when collecting sediment samples in shallow waters:

1. Collect sediments as specified in the work plan or as determined during office preparation activities, using a stainless steel trowel, piston corer or similar device and a stainless steel, tempered glass or aluminum container.
2. Standing downstream of the sample stations, collect discrete sediment samples from each station and, if required in the work plan, composite in stainless steel, tempered glass or aluminum container.
3. Collect sediment samples of deposited material from the depth specified in the work plan or as determined during the office preparation activities. Record the depth in the logbook. Selective removal of the top sediment layers may be required and should be accomplished by carefully removing the sediments with a stainless steel trowel or scoop. In streams where water velocity is insufficient to disturb sediment fines during sediment sampling, a stainless

SOP	1002.04				
GROUP	Sampling Procedures				
SUB-GROUP	Soil Sampling Procedures				
TITLE	Sediment Sampling				
DATE	2/6/2009	FILE	1002-04.DOC	PAGE	3 of 3

steel trowel or scoop may be used for sampling. Where water velocities are high, a stainless steel corer will be utilized.

4. When applicable, composite discrete sediment samples by placing equal volumes of sediment material collected from the sample points into the container and mixing thoroughly to obtain a homogeneous mixture. Samples may be sieved or hand picked, if necessary, to remove larger materials, such as leaves, sticks, gravel, or rocks. Record in the logbook the nature of any materials removed from the sediment samples.
5. Place each sediment sample into the proper clean, unused sample container, as required by the work plan or laboratory. Sampling personnel must avoid placing sediment into the sample container and decanting off the excess liquid in analyzing for volatile organics and water soluble compounds in the sediment and reduces accurate representation of sediment analysis.
6. Fill out labels with waterproof ink and attach to the sample container.
7. Decontaminate sampling equipment between samples.

Sediment Sampling in Deep Waters

Procedures for sampling in deep waters are the same as for shallow waters except the sampling equipment is different. Soft, fine-grained sediments collected in deep waters will be sampled with a WILDSCO KB Core Sampler or similar equipment. Coarse-grained sediments will be collected utilizing a Ponar Grab Sampler or similar equipment. Both samplers will be operated from a boat following appropriate safety procedures. Documentation, containerization, labeling and decontamination procedures are the same as for sediment samples collected in shallow waters.

Sediment Sampling in Drainage Ditches and Intermittent Streams

Procedures for sediment sampling in drainage ditches and the dry portions of intermittent streams are as specified for shallow water sediments.

SOP	1005.01				
GROUP	Sampling Procedures				
SUB-GROUP	Field QA/QC Sampling				
TITLE	Field Duplicate Collection				
DATE	4/27/2005	FILE	1005-01.DOC	PAGE	1 of 2

INTRODUCTION

The following Standard Operating Procedure (SOP) describes the procedure for collecting field duplicate soil and water samples. When samples are collected for analysis, it is typically desired that independent data allowing evaluation of laboratory precision (i.e., the degree to which a laboratory result can be repeated) on site-specific samples be collected.

A field duplicate sample is a second sample collected at the same location as the original sample. Duplicate samples are collected simultaneously or in immediate succession, using identical recovery techniques, and treated in an identical manner during storage, transportation, and analysis. The sample containers are assigned an identification number in the field such that they cannot be identified (blind duplicate) as duplicated samples by laboratory personnel performing the analysis. Specific locations are designated for collection of field duplicate samples prior to the beginning of sample collection.

The duplicate soil sampling procedure is closely related to SOP Nos. 1001.01, 1001.03, and 1001.10 regarding soil sampling procedures. This procedure serves as an alternative method or extension of sample preparation prior to placing the samples in containers, as described in the 1001 series of the SOPs (e.g. 1001.01 and 1001.03).

DUPLICATE SOIL SAMPLING PROCEDURE

The procedure to be used to physically collect soil samples are described in SOP Nos. 1001.01 and 1001.03. Reference should be made to these SOPs for specific sampling equipment, procedures, and other general guidelines. As soil is collected, the following procedure will be used to prepare a field duplicate sample:

- The soil will be collected in general accordance with SOP 1001.01 or 1001.03, with the exception that samples will generally not be immediately placed into sample containers and an additional preparation step (i.e., sample splitting) will be performed.
- As they are collected, soil samples to be submitted as field duplicates will be staged in a clean mixing bowl or mixing bucket.
- For samples that will be analyzed for volatile organic compounds, the soil sample will be split in half and an equal portion of soil will be placed directly into two or more different sample containers, each container representing a different sample for laboratory analysis. The soil will not be homogenized to minimize the potential for volatilization of the organic compounds potentially in the sample.
- For analyses of chemicals other than volatile organic compounds, the soil removed from the discrete sample location will be homogenized in a clean mixing bowl using a clean scoop or spatula (as described in SOPs 1001.01 and 1001.03). Homogenization will generally continue until the discrete samples being combined are reasonably indistinguishable as individual samples in the soil mixture. However, it is recognized that homogenization can be difficult for highly plastic clays. In this case, equal amounts of the soil core of each clay sample will be cut into small, roughly cubical pieces using a stainless steel knife and placed into a bowl and homogenized to extent practical.

SOP	1005.01				
GROUP	Sampling Procedures				
SUB-GROUP	Field QA/QC Sampling				
TITLE	Field Duplicate Collection				
DATE	4/27/2005	FILE	1005-01.DOC	PAGE	2 of 2

- The field duplicate sample (except for volatiles as note above) will be collected from the mixing bowl containing the homogenized samples after homogenization is performed. The composited sample will be collected using a stainless steel or disposable plastic scoop or similar tool. The sample will be placed in a clean sample container and then handled in accordance with soil sampling SOPs 1001.01 and 1001.03.

Another difference from the referenced SOPs is that additional soil volume may need to be collected from a discrete sample location during the sampling process to provide sufficient sample volume for two or more sets of laboratory analyses. If the collection of additional sample volume will result in the sample interval expanding to greater depths or laterally outward, the sampling tools identified in 1001 series of the SOPs can be used at two immediately vertically or laterally adjacent locations, as appropriate. If sampling from two adjacent but distinct locations is necessary to obtain adequate sample volume, the soil from the two locations should be composited in accordance with SOP 1001.10. Field duplicates of composited samples may also be performed using this SOP for field duplicate samples.

Variations on this procedure are allowable to accommodate different soil conditions and any site requirements specifically identified in the site-specific Sampling and Analysis Plan. Equipment that may be used as part of the soil compositing procedure is identified under SOP Nos. 1001.01 and 1001.03 where soil sampling methods are described.

DUPLICATE WATER SAMPLING PROCEDURES

The procedure to be used to physically collect water samples are described in 1002 series of the SOPs (e.g. 1002.01 and 1002.02). Reference should be made to these SOPs for specific sampling equipment, procedures, and other general guidelines. A duplicate water sample will be collected from the same location as the parent sample and within 15 minutes of the collection of the parent sample.

The number of samples that may be submitted as blind field duplicates for the project in question will be specified in the site-specific sampling plan. Blind field duplicates are typically collected at a frequency of 1 per 10 samples of a given environmental media at sites, especially where laboratory analytical data will be used for evaluating regulatory compliance and other engineering judgments. Sampling in support of a routine monitoring program may not require field duplicates. Reference should be made to the site-specific contract and work plans.

REFERENCES

SOP No. 1001.01 - Standard Operating Procedure, Surface Soil Sampling
SOP No. 1001.03 - Standard Operating Procedure, Soil Sampling - Hand Auger Method
SOP No. 1001.10 - Standard Operating Procedure, Soil Compositing

SOP	1005.02				
GROUP	Sampling Procedures				
SUB-GROUP	Field QA/QC Sampling				
TITLE	Rinse Blank Preparation				
DATE	2/6/2009	FILE	1005-02.DOC	PAGE	1 of 1

INTRODUCTION

The following Standard Operating Procedure (SOP) presents a method to prepare a type of quality control sample specific to the field decontamination process, the equipment rinse blank. The rinse blank provides information on the effectiveness of the decontamination process employed in the field. When used in conjunction with field blanks and trip blanks, the rinse blank can be used to assist in evaluating possible compromise of samples from field related activities.

PROCEDURE

The equipment rinse blank is prepared by passing target analyte-free (i.e., deionized) water over and through a field decontaminated sampling device, then collecting the rinse water in appropriate clean sample containers. Rinse blanks will typically be collected from equipment that comes in contact with samples, such as auger buckets, split spoons, bailers, shelby tubes, and stainless steel spoons/trowels. The collected sample will be coded appropriately prior to logging and shipping. Equipment blanks are not required if dedicated sampling equipment is used. Equipment blanks will be collected periodically during the day immediately after decontamination of the sampling equipment being used.

The frequency for collecting equipment blanks will be determined prior to engaging in field activities, and communicated in site-specific quality assurance project plans, sampling and analyses plans, or a type of work plan. Equipment blanks will be collected at a rate relative to each type of sample collection procedure (i.e., surface sample, sample at depth using a hand auger). Equipment blanks will generally be collected at a frequency of 1 per 20 (normal) samples of a given matrix.

SOP	1101.01				
GROUP	Sampling Handling				
SUB-GROUP	Sample Custody				
TITLE	Sample Custody in the Field				
DATE	11/19/2001	FILE	1101-01.DOC	PAGE	1 of 4

INTRODUCTION

The following Standard Operating Procedure (SOP) presents procedures for maintaining sample chain of custody (COC) during activities where samples are collected.

PROCEDURE

Sample custody is defined as being under a person's custody if any of the following conditions exist:

- it is in their possession,
- it is in their view, after being in their possession,
- it was in their possession and they locked it up, or
- it is in a designated secure area.

A designated field sampler will be personally responsible for the care and custody of collected samples until they are transferred to another person or properly dispatched to the laboratory. To the extent practicable, as few people as possible will handle the samples.

Sample tags or labels will be completed and applied to the container of each sample. When the tags or labels are being completed, waterproof ink will be used. If waterproof ink is not used, the tags or labels will be covered by transparent waterproof tape. Sample containers may also be placed in Ziploc-type storage bags to help keep them clean in the cooler. Information typically included on the sample tags or labels will include the following:

- Project Code
- Station Number and Location
- Sample Identification Number
- Date and Time of Sample Collection
- Type of Laboratory Analysis Required
- Preservation Required, if applicable
- Collector's Signature
- Priority (optional)
- Other Remarks

Additional information may include:

- Anticipated Range of Results (Low, Medium, or High)
- Sample Analysis Priority

SOP	1101.01				
GROUP	Sampling Handling				
SUB-GROUP	Sample Custody				
TITLE	Sample Custody in the Field				
DATE	11/19/2001	FILE	1101-01.DOC	PAGE	2 of 4

A COC form will be completed each time a sample or group of samples is prepared for transfer to the laboratory. The form will repeat the information on each of the sample labels and will serve as documentation of handling during shipment. The minimum information requirements of the COC form are listed in Table 1101.01-A. An example COC form is shown in Figure 1101.01-A. The completed COC must be reviewed by the Field Team Leader or Site Manager prior to sample shipment. The COC form will remain each sample shipping container at all times, and another copy will be retained by the member of the sampling team who originally relinquished the samples or in a project file.

SOP	1101.01				
GROUP	Sampling Handling				
SUB-GROUP	Sample Custody				
TITLE	Sample Custody in the Field				
DATE	11/19/2001	FILE	1101-01.DOC	PAGE	3 of 4

TABLE 1101.01-A CHAIN OF CUSTODY FORM

INFORMATION	COMPLETED BY	DESCRIPTION
COC	Laboratory	enter a unique number for each chain of custody form
SHIP TO	Field Team	enter the laboratory name and address
CARRIER	Field Team	enter the name of the transporter (e.g., FedEx) or handcarried
AIRBILL	Field Team	enter the airbill number or transporter tracking number (if applicable)
PROJECT NAME	Field Team	enter the project name
SAMPLER NAME	Field Team	enter the name of the person collecting the samples
SAMPLER SIGNATURE	Field Team	signature of the person collecting the samples
SEND RESULTS TO	Field Team	enter the name and address of the prime contractor
FIELD SAMPLE ID	Field Team	enter the unique identifying number given to the field sample (includes MS, MSD, field duplicate and field blanks)
DATE	Field Team	enter the year and date the sample was collected in the format M/D (e.g., 6/3)
TIME	Field Team	enter the time the sample was collected in 24 hour format (e.g., 0900)
MATRIX	Field Team	enter the sample matrix (e.g., water, soil)
PRESERVATIVE	Field Team	enter the preservative used (e.g., HNO3) or "none"
FILTERED/ UNFILTERED	Field Team	enter "F" if the sample was filtered or "U" if the sample was not filtered
CONTAINERS	Field Team	enter the number of containers associated with the sample
MS/MSD	Field Team or Laboratory	enter "X" if the sample is designated for the MS/MSD
ANALYSES REQUESTED	Field Team	enter the method name of the analysis requested (e.g., SW6010A)
COMMENTS	Field Team	enter comments
SAMPLE CONDITION UPON RECEIPT AT LABORATORY	Laboratory	enter any problems with the condition of any sample(s)
COOLER TEMPERATURE	Laboratory	enter the internal temperature of the cooler, in degrees C, upon opening
SPECIAL INSTRUCTIONS/COMMENTS	Laboratory	enter any special instructions or comments
RELEASED BY (SIG)	Field Team and Laboratory	enter the signature of the person releasing custody of the samples
COMPANY NAME	Field Team and Laboratory	enter the company name employing the person releasing/receiving custody
RECEIVED BY (SIG)	Field Team and Laboratory	enter the signature of the person receiving custody of the samples
DATE	Field Team and Laboratory	enter the date in the format M/D/YY (e.g., 6/3/96) when the samples were released/received
TIME	Field Team and Laboratory	enter the date in 24 hour format (e.g., 0900) when the samples were released/received

SOP	1101.01				
GROUP	Sampling Handling				
SUB-GROUP	Sample Custody				
TITLE	Sample Custody in the Field				
DATE	11/19/2001	FILE	1101-01.DOC	PAGE	4 of 4

FIGURE 1101.01-A CHAIN OF CUSTODY FORM

SOP	1201.01				
GROUP	Decontamination				
SUB-GROUP	Sampling Equipment Decontamination				
TITLE	Sampling Equipment Decontamination				
DATE	11/19/2001	FILE	1201-01.DOC	PAGE	1 of 3

INTRODUCTION

The following Standard Operating Procedure (SOP) presents the methods used for minimizing the potential for cross-contamination, and provides general guidelines for sampling equipment decontamination procedures.

PROCEDURE

As part of the Health and Safety Plan (HASP), develop and set up a decontamination plan before any personnel or equipment enter the areas of potential exposure. The decontamination plan should include the following:

- The number, location, and layout of decontamination stations
- Which decontamination apparatus is needed
- The appropriate decontamination methods
- Methods for disposal of contaminated clothing, apparatus, and solutions

Decontamination Methods

Personnel, samples, and equipment leaving the contaminated area of a site will be decontaminated. Various decontamination methods will be used to either physically remove contaminants, inactivate contaminants by disinfection or sterilization, or both. The physical decontamination techniques appropriate for equipment decontamination can be grouped into two categories: abrasive methods and non-abrasive methods.

Abrasive Cleaning Methods

Abrasive cleaning methods work by rubbing/scrubbing the surface containing the contaminant. This method includes mechanical and wet blasting methods.

Mechanical cleaning methods use brushes of metal or nylon. The amount and type of contaminants removed will vary with the hardness of bristles, length of brushing time, and degree of brush contact.

Cleaning can also be accomplished by water blasting which is also referred to as steam cleaning and pressure washing. Pressure washing utilizes high-pressure that is sprayed from a nozzle onto sampling equipment to physically remove soil or (potentially) contaminated material. Steam cleaning is a modification of pressure washing where the water is heated to temperatures approaching 100°C to assist in removing organic constituents from equipment.

SOP	1201.01				
GROUP	Decontamination				
SUB-GROUP	Sampling Equipment Decontamination				
TITLE	Sampling Equipment Decontamination				
DATE	11/19/2001	FILE	1201-01.DOC	PAGE	2 of 3

Disinfection/Rinse Methods

Disinfectants are a practical means of inactivating chemicals or contaminants of concern. Standard sterilization methods involve heating the equipment which is impractical for large equipment. Rinsing removes contaminants through dilution, physical attraction, and solubilization.

The use of distilled/deionized water commonly available from commercial vendors may be acceptable for decontamination of sampling equipment provided that it has been verified by laboratory analysis to be target analyte free. Tap water may be used from any municipal water treatment system for mixing of decontamination solutions. An untreated potable water supply is not an acceptable substitute for tap water. Acids and solvents are occasionally utilized in decontamination of equipment to remove metals and organics, respectively, from sampling equipment. Other than ethanol, these are avoided when possible due to the safety, disposal, and transportation concerns associated with them.

Equipment or apparatuses that may be selected for use include the following:

- Personal protective clothing
- Non-phosphate detergent
- Selected solvents for removal of polar and nonpolar organics (ethanol, methanol, hexane)
- Acid washes for removal of metals (nitric acid)
- Long-handled brushes
- Drop cloths or plastic sheeting
- Paper towels
- Galvanized tubs or buckets
- Distilled, deionized, or tap water (as required by the project)
- Storage containers for spent wash solutions
- Sprayers (pressurized and non-pressurized)
- Trash bags
- Safety glasses or splash shield

Field Sampling Equipment Cleaning Procedures

The following procedures should be followed:

1. Where applicable, follow physical removal procedures previously described (pressure wash, scrub wash)
2. Wash equipment with a non-phosphate detergent solution
3. Rinse with tap water
4. Rinse with distilled or deionized water
5. Rinse with 10% nitric acid if the sample will be analyzed for metals/organics
6. Rinse with distilled or deionized water
7. Use a solvent rinse (pesticide grade) if the sample will be analyzed for organics
8. Air dry the equipment completely
9. Rinse again with distilled or deionized water

SOP	1201.01				
GROUP	Decontamination				
SUB-GROUP	Sampling Equipment Decontamination				
TITLE	Sampling Equipment Decontamination				
DATE	11/19/2001	FILE	1201-01.DOC	PAGE	3 of 3

10. Place in clean bag or container for storage/transport to subsequent sampling locations.

Selection of the solvent for use in the decontamination process is based on the contaminants present at the site. Solvent rinses are not necessarily required when organics are not a contaminant of concern and may be eliminated from the sequence specified below. Similarly, an acid rinse is not required if the analyses do not include inorganics. Use of a solvent is required when organic contamination is present on-site. Typical solvents used for removal of organic contaminants include acetone, ethanol, hexane, methanol, or water. An acid rinse step is required if metals are present on-site. If a particular contaminant fraction is not present at the site, the ten-step decontamination procedure listed above may be modified for site specificity.

Sampling equipment that requires the use of plastic tubing should be disassembled and the tubing replaced with clean tubing before commencement of sampling and between sampling locations. Plastic tubing should not be reused.

SOP	1501.01				
GROUP	Field Documentation				
SUB-GROUP					
TITLE	Field Logbook				
DATE	11/19/2001	FILE	1501-01.DOC	PAGE	1 of 3

INTRODUCTION

The following Standard Operating Procedure (SOP) presents the procedures for documenting activities observed or completed in the field in a field logbook. The documentation should represent all activities of WESTON personnel and entities under WESTON's supervision.

TERMS

FSP - Field Sampling Plan

SAP - Sampling and Analysis Plan

QAPP - Quality Assurance Project Plan

HASP - Health and Safety Plan

PROCEDURE

Field logbooks will be used and maintained during field activities to document pertinent information observed or completed by WESTON personnel or entities that WESTON is responsible for providing oversight. Field logbooks are legal documents that form the basis for later written reports and may serve as evidence in legal proceedings. The Site Manager or Field Team Leader will review field log entries daily and initial each page of entries. Field logbooks will be maintained by the Site Manager or Field Team Leader during field activities and transferred to the project files for a record of activities at the conclusion of the project. General logbook entry procedures are listed below.

- Logbooks must be permanently bound with all pages numbered to the end of the book. Entries should begin on page 1.
- Only use blue or black ink (waterproof) for logbook entries.
- Sign entries at the end of the day, or before someone else writes in the logbook.
- If a complete page is not used, draw a line diagonally across the blank portion of the page and initial and date the bottom line.
- If a line on the page is not completely filled, draw a horizontal line through the blank portion.
- Ensure that the logbook clearly shows the sequence of the day's events.
- Do not write in the margins or between written lines, and do not leave blank pages to fill in later.
- If an error is made, make corrections by drawing a single line through the error and initialing it.
- Maintain control of the logbook and keep in a secure location.

SOP	1501.01				
GROUP	Field Documentation				
SUB-GROUP					
TITLE	Field Logbook				
DATE	11/19/2001	FILE	1501-01.DOC	PAGE	2 of 3

Field logbooks will contain, at a minimum, the following information, if applicable:

General Information

- Name, location of site, and work order number
- Name of the Site Manager or Field Team Leader
- Names and responsibilities of all field team members using the logbook (or involved with activities for which entries are being made)
- Weather conditions
- Field observations
- Names of any site visitors including entities that they represent

Sample Collection Activities

- Date(s) and times of the sample collection or event.
- Number and types of collected samples.
- Sample location with an emphasis on any changes to documentation in governing documents (i.e., SAP, FSP). This may include measurements from reference points or sketches of sample locations with respect to local features.
- Sample identification numbers, including any applicable cross-references to split samples or samples collected by another entity.
- A description of sampling methodology, or reference to any governing document (i.e., FSP, SAP, QAPP).
- Summary of equipment preparation and decontamination procedures.
- Sample description including depth, color, texture, moisture content, and evidence of waste material or staining.
- Air monitoring (field screening) results.
- Types of laboratory analyses requested.

Site Health and Safety Activities

- All safety, accident, and/or incident reports.

SOP	1501.01				
GROUP	Field Documentation				
SUB-GROUP					
TITLE	Field Logbook				
DATE	11/19/2001	FILE	1501-01.DOC	PAGE	3 of 3

- Real-time personnel air monitoring results, if applicable, or if not documented in the HASP.
- Heat/cold stress monitoring data, if applicable.
- Reasons for upgrades or downgrades in personal protective equipment.
- Health and safety inspections, checklists (drilling safety guide), meetings/briefings.
- Calibration records for field instruments.

Oversight Activities

- Progress and activities performed by contractors including operating times.
- Deviations of contractor activities with respect to project governing documents (i.e., specifications).
- Contractor sampling results and disposition of contingent soil materials/stockpiles.
- Excavation specifications and locations of contractor confirmation samples.
- General site housekeeping and safety issues by site contractors.

SOP	1502.01				
GROUP	Field Documentation				
SUB-GROUP					
TITLE	Photograph Logs				
DATE	11/19/2001	FILE	1502-01.DOC	PAGE	1 of 1

INTRODUCTION

The following Standard Operating Procedure (SOP) presents the requirements for collecting information related to photodocumentation of site activities.

PROCEDURE

- Uniquely number each roll of film obtained for use.
- Record the following information for each negative exposed:
 1. Date and Time
 2. Photographer Name
 3. Witness Name
 4. Orientation (Landscape, Portrait, or Panaoramic)
 5. Description (including activity being performed, specific equipment of interest, sample location(s), compass direction photographer is facing)
- Record "NA" for the negatives not used if the roll is not completely used prior to development.
- Record unique roll number on receipt when film is submitted for development.
- Verify descriptions on log with negative numbers when photographs are received from processing.

FORMS

Blank Photograph Logs can be printed from WESTON On-Line from the *Records Management Application*. Selecting the *Reports/Project Planning/Blank Photo Logs* menu option will generate a project specific log with 36 entries.

SOP	0110.01				
GROUP	Database Management System				
SUB-GROUP	Data Collection and Acquisition				
TITLE	Sample Nomenclature				
DATE	02/26/2009	FILE	0110-20060227.DOC	PAGE	1 of 2

INTRODUCTION

The following Standard Operating Procedure (SOP) presents the sample nomenclature for analytical samples that will generate unique sample names compatible with most data management systems. The sample nomenclature is based upon specific requirements for the reporting of these results. A site specific data management plan should be prepared prior to sample collection.

PROCEDURE

SAMPLE NOMENCLATURE – SOIL AND SEDIMENT

Area of Concern – ID – Depth - Collection Type + QC Type

Where:

Area of Concern: A four-digit identifier used to designate the particular Area of Concern (AOC) that the location where the sample was collected.

ID: A three-digit identifier used to designate the particular location in the AOC from which the sample was collected or the center of the composite sample.

Depth: A two-digit code used to designate what depth of sample was collected:

03	0 to 3 inches
06	3 to 6 inches
12	6 to 12 inches

Collection Type: A one-digit code used to designate what type of sample was collected:

1	Surface Water
2	Ground Water
3	Leachate
4	Field QC/water sample
5	Soil/Sediment

6	Oil
7	Waste
8	Other
9	Drinking Water

QC Type: A one-digit code used to designate the QC type of the sample:

1	Normal
2	Duplicate
3	Rinsate Blank
4	Trip Blank
5	Field Blank
6	Confirmation

Examples:

- **2054-055-06-51:** Represents the normal soil sample collected from AOC 2054 at location 055 from 3 to 6 inches of depth.
- **2054-055-06-52:** Represents the duplicate soil sample collected from AOC 2054 at location 055 from 3 to 6 inches of depth.
- **2054-055-06-43:** Represents the rinsate water sample collected after the last sample of the day if last sample was collected from AOC 2054 at location 055 from 3 to 6 inches of depth.

SOP	0110.01				
GROUP	Database Management System				
SUB-GROUP	Data Collection and Acquisition				
TITLE	Sample Nomenclature				
DATE	02/26/2009	FILE	0110-20060227.DOC	PAGE	2 of 2

SAMPLE NOMENCLATURE – WATER (from fixed station or location to be sampled more than once)

WELL OR STATION – YYYYMMDD - Collection Type + QC Type

Where:

Well or Station: For Wells and boreholes always assume there will be 10 or more so Monitoring Well 1 becomes designated MW01 or MW-01. If it is anticipated that there will be over 100 wells designate Monitoring Well 1 as MW001 or MW-001.

YYYYMMDD: A four-digit year + two-digit month + two-digit day

Collection Type: A one-digit code used to designate what type of sample was collected and are shown on page 1.

QC Type: A one-digit code used to designate the QC type of the sample and are shown on page 1.

Examples:

- **MW01-20090226-21:** Represents the normal groundwater sample collected from Monitoring Well 1 on 26 February 2009.
- **MW01-20090226-44:** Represents the trip blank in the same ice chest as the groundwater sample in the previous collected from Monitor Well 1 on 02/26/2009. All trip blanks must have a sample ID and they must be unique and on the Chain-of-Custody.
- **2054-000-00-43:** Represents the rinsate sample from AOC 2054

APPENDIX B
SITE-SPECIFIC DATA QUALITY OBJECTIVES

**SITE-SPECIFIC DATA QUALITY OBJECTIVES
SECTION 12 URANIUM MINE**

STEP 1. STATE THE PROBLEM	
Legacy uranium mine sites in the Grants Mining District of northwest New Mexico may contain soil/sediment and mine waste rock that are elevated in trace metals and radionuclides above background concentrations which may pose a hazard to human health and the environment.	
STEP 2. IDENTIFY THE DECISION	
Does the soil environment at the generic uranium mine site contain hazardous and radiological materials at concentrations that: 1) equals or exceeds a value of two standard deviations above the mean site-specific background concentration for a specific radionuclide; or 2) exceeds three times the natural background concentrations for the specific radionuclide, whichever is lower. If these concentrations satisfy the criteria in 1) and 2), the conditions constitute and establish an “ <i>observed release</i> ” per the HRS Guidance Manual, Section 5.1 page 55; and the CERCLA SI Guidance in Section 4.9.4 page 89-90, (EPA/540-R-92-021).	
IDENTIFY THE ALTERNATIVE ACTIONS THAT MAY BE TAKEN BASED ON THE DECISIONS.	<ul style="list-style-type: none"> • If the concentrations of hazardous and radiological materials in soil at the uranium mine site constitute an <i>observed release</i>, then further remedial action under CERCLA will be recommended.
STEP 3. IDENTIFY INPUTS TO THE DECISION	
INFORMATIONAL INPUTS NEEDED TO RESOLVE A DECISION.	<ul style="list-style-type: none"> • Elevated metal and radionuclide concentrations in soil at the uranium mine site are equal to or exceed two standard deviations above the mean site-specific background concentrations. • Elevated metal and radionuclide concentrations in soil at the uranium mine site are equal to or exceed by three times the mean background concentrations for radiological measurement and soil sampling.
SOURCES FOR EACH INFORMATIONAL INPUT AND INPUTS THAT ARE OBTAINED THROUGH ENVIRONMENTAL MEASUREMENTS.	<ul style="list-style-type: none"> • Radiological gamma survey measurements with handheld NaI detector instrument conducted at 200 ft., 100 ft., and/or 50 ft. grid spacing across site area and at unique site features. • Background radiological measurements collected at four or more off site locations will provide an average background radioactivity concentration for comparison. • Field measurements of gamma activity are collected and the field variance is calculated to determine the number of soil/sediments to be collected. • Background surface soil samples analyzed by a laboratory for 23 metals and isotopes of three or four radionuclides. • Suspected hot spot soil locations within the mine site property analyzed by a laboratory for 23 metals and isotopes of three or four radionuclides.

SITE-SPECIFIC DATA QUALITY OBJECTIVES
SECTION 12 URANIUM MINE
(Continued)

STEP 3. IDENTIFY INPUTS TO THE DECISION (Continued)	
BASIS FOR THE CONTAMINANT SPECIFIC ACTION LEVELS.	<ul style="list-style-type: none"> • Concentrations of hazardous materials and radionuclides more than three times the background concentrations constitute an “observed release” per the HRS Guidance Manual, Section 5.1 page 55. • Concentrations of metal and radionuclide concentrations in soil/sediment that are equal to or exceed two standard deviations above the mean site-specific background concentrations constitute an observed release per Section 4.9.4 (page 89) of the guidance document for performing site inspections under CERCLA.
POTENTIAL SAMPLING TECHNIQUES AND APPROPRIATE ANALYTICAL METHODS.	<ul style="list-style-type: none"> • Gamma radioactivity concentrations in cpm and/or uR/hr (dose) will be determined using field instruments to measure radioactivity on the soil surface and at 3 ft high for a 60 second count rate. • Gamma measurements will be used to calculate the average background concentration, the average site concentration, the range, and the field variance. • The field variance will be used to calculate the number of soil/sediment samples required for laboratory analysis to characterize the specific radionuclide concentrations. • The number of soil/sediments samples will be determined by a calculation using the field variance, Upper Confidence Level 95% (90% or 80% if necessary) and a margin of error at 0.20. • Laboratory analyte concentrations for specific metals and radionuclides will be used to calculate: the background mean concentrations, the site mean concentrations, the range, and the variance.
STEP 4. DEFINE THE BOUNDARIES OF THE STUDY	
DOMAIN OF GEOGRAPHIC AREA WITHIN WHICH ALL DECISIONS MUST APPLY.	Property boundary surrounding uranium mine site and/or all areas suspected of impact by mine activities and/or natural erosion processes that may have dispersed on-site materials beyond property boundaries.
CHARACTERISTICS THAT DEFINE THE POPULATION OF INTEREST.	Gamma radiation and radionuclide concentration measured in soil/sediments impacted by mine waste rock.
DETERMINATION OF WHEN TO COLLECT DATA.	<ul style="list-style-type: none"> • Data will be collected after target uranium mine sites are identified and access is acquired from land owners. • Field measurements of background gamma activity and site specific activity will be collected using a grid system. • Determination of the field variance from the field measurements will be used in a formula to calculate the number of soil/sediments to be collected for laboratory analysis.

SITE-SPECIFIC DATA QUALITY OBJECTIVES
SECTION 12 URANIUM MINE
(Continued)

STEP 4. DEFINE THE BOUNDARIES OF THE STUDY (Continued)	
PRACTICAL CONSTRAINTS ON DATA COLLECTION.	<ul style="list-style-type: none"> • Access to the site and/or appropriate background area is not attainable due to landowner and/or physical constraints. • Field radiological measurements may be unreliable due to excessive soil moisture, inclement weather, equipment malfunction, or operator error. • Erroneous determination of field gamma activity measurements and subsequent erroneous calculation of the field variance may result in an inadequate number of soil/sediments collected for laboratory analysis.
STEP 5. DEVELOP A DECISION RULE	
SPECIFY THE PARAMETER THAT CHARACTERIZES THE POPULATION OF INTEREST.	<ul style="list-style-type: none"> • Field measurements of gamma radioactivity will be used to calculate: the mean background gamma concentration; the on-site mean gamma concentration; the on-site range of gamma concentrations; and the field variance of the on-site gamma concentration. • The on-site gamma concentrations will be compared to the mean background gamma concentration of the mine site to determine if the concentration is equal to or two times the mean. • Laboratory analyte concentrations for specific metals and radionuclides will be used to calculate the specific mean background soil/sediment mean concentrations; the specific on-site mean soil/sediment concentrations; the range of on-site specific concentrations; and the statistical variability of on-site concentrations, e.g., the sample variance and standard deviation. • Laboratory analyte concentrations that are equal to or exceed three times the mean background concentrations will be characterized as an observed release. • Laboratory analyte concentrations that are equal to or exceed two standard deviations above the mean background concentration will be characterized as an observed release.
SPECIFY THE ACTION LEVEL FOR THE DECISION.	<ul style="list-style-type: none"> • Field measurements of gamma radioactivity that are equal to or exceed twice the mean background gamma activity concentration. • Laboratory analyte concentrations that are equal to or exceed three times the mean background concentrations will be characterized as an observed release. • Laboratory analyte concentrations that are equal to or exceed two standard deviations above the mean background concentration will be characterized as an observed release.
DECISION RULES.	<ul style="list-style-type: none"> • If on-site field gamma activity measurements exceed the mean background gamma activity concentration by more than two times, the likelihood of an observed release is high.

SITE-SPECIFIC DATA QUALITY OBJECTIVES
SECTION 12 URANIUM MINE
(Continued)

STEP 6. SPECIFY LIMITS ON DECISION ERRORS	
DETERMINE THE POSSIBLE RANGE OF THE PARAMETER OF INTEREST.	<ul style="list-style-type: none"> • Limit for uncertainty in measurement is 20% (0.20) at a 95% confidence level for the data set. • Mean background gamma radioactivity concentrations typically range from 12-20 uR/hr or less than 3,000 to 5,000 cpm. • On-site uranium mine waste rock gamma radioactivity concentrations may range over 200 uR/hr & higher, or several tens or hundreds of thousands cpm (>> 10,000-100,000 cpm). • Background concentration of radium-226 in soil is generally 1.0-1.5 pCi/g. • Uranium mass concentrations in soil typically measure 3 ug/g or 2 pCi/g. • Uranium mine site waste rock concentrations of radium-226 may exceed 100 pCi/g.
DEFINE BOTH TYPES OF DECISION ERRORS AND IDENTIFY THE POTENTIAL CONSEQUENCES OF EACH.	<p><u>Type I Error</u>: Deciding that the uranium mine site is represented by field measurements and/or sample results does not exceed three times the mean background concentration or two standard deviations above the mean background concentration when, in truth, it does. The consequence of this decision error is that the soil/sediment/waste rock material will remain in place, unremediated, possibly presenting a hazard to human health and the environment. This decision error is the most severe.</p> <p><u>Type II Error</u>: Deciding that the uranium mine site area represented by field measurements and/or sample results does exceed the mean background concentration by three times or two standard deviations when, in truth, it does not. The consequences of this decision error further remedial action under CERCLA will continue and potentially divert resources from higher priority sites.</p>
TRUE STATE OF NATURE FOR EACH DECISION RULE.	<p><u>Type I</u>: The field and laboratory measurements of hazardous materials and radionuclide concentrations in soil are greater than three times or two standard deviations above the mean background concentrations.</p> <p><u>Type II</u>: The field and laboratory measurements of hazardous materials and radionuclide concentrations in soil are less than three times or two standard deviations above the mean background concentrations.</p>
DEFINITION OF THE TRUE STATE OF NATURE FOR THE MORE SEVERE DECISION ERROR AS THE BASELINE CONDITION OR THE NULL HYPOTHESES (H ₀) AND FOR THE LESS SEVERE DECISION ERROR AS THE ALTERNATIVE HYPOTHESES (H _a). TRUE STATE OF NATURE FOR EACH DECISION RULE.	<p><u>Type I</u>: Ambient radioactivity levels impact human health.</p> <p><u>Type II</u>: Ambient radioactivity levels do not impact human health.</p>

SITE-SPECIFIC DATA QUALITY OBJECTIVES
SECTION 12 URANIUM MINE
(Continued)

STEP 7. OPTIMIZE THE DESIGN

REVIEW THE DQOs.

Determine what else can be done to improve the methodology. Get some internal and external review by other staff and agencies. Test implementation of proposed design/methodology at one or two sites then review lessons learned. Make adjustments in design and improve methodology with more sites over time.

DEVELOP GENERAL SAMPLING AND ANALYSIS DESIGN.

A total of 15 soil and 2 waste source samples will be collected from the uranium mine pits and waste areas within the Section 12 Uranium Mine and analyzed to determine the presence of metals and radionuclides above background concentrations.

APPENDIX C

TDD No. TO-0035-11-09-02

Assessment/Inspection Activities -
Enforcement Funds (0035)
Weston Solutions, Inc.

! = required field Moved To EAS

Note: Remaining Amount
includes \$0.00 in Reserve.

TDD Name: Section 12 Uranium Mine ORS		! Period: Base Period	
! Purpose: Work Assignment Initiation			
! Priority: High		! Start Date: 09/30/2011	
Overtime: No		! Completion Date: 06/29/2012	
! Funding Category: Removal		Invoice Unit:	
! Project/Site Name: Section 12 Uranium Mine ORS		WorkArea: ASSESSMENT/INSPECTIONS ACTIVITIES	
Project Address:		Activity: Expanded Site Inspections/Remedial Investigation (ESI/RI)	
County: McKinley		Work Area Code:	
City, State: , NM		Activity Code:	
Zip:		EMERGENCY CODE: <input type="checkbox"/> KAT <input type="checkbox"/> RIT	
! SSID: A6CE		FPN:	
CERCLIS: NMN000607185		Performance Based: No	
Operable Unit:			
Authorized TDD Ceiling:		Cost/Fee	LOE (Hours)
Previous Action(s):		\$0.00	0.0
This Action:		\$26,661.00	0.0
New Total:		\$26,661.00	0.0

Specific Elements

Description of Work:

All activities performed in support of this TDD shall be in accordance with the contract and TO PWS.

The Grants Mining District provided significant uranium extraction and production in New Mexico from the 1950s until late into the 20th century. There are three mining sub-districts within the Grants Mining District: Ambrosia Lake, Laguna, and Marquez. Land ownership within these sub-districts consists of public, tribal and private property. These mining sub-districts contain 97 former legacy uranium mines and five mill sites. The EPA is currently assessing the mine sites for releases that may have impacted soil, surface water and groundwater. Under this TDD, the contractor shall investigate mine water discharge locations, sample potentially impacted soil for elevated concentrations of elemental uranium and radionuclides, sample any surface water present for metals and radionuclides, and sample any accessible groundwater wells in the immediate area of the Section 12 mine site in the Ambrosia Lake sub-district. The contractor shall document mine site features (e.g. open mine portals, waste rock piles, mine operation-related structures, etc.) and sample locations with photographs, descriptions, and geospatially. A draft and final report shall be written for the mine site. Coordinate with SAM, Lisa Price at price.lisa@epa.gov or 214-665-6744, upon receipt of the TDD.

Accounting and Appropriation Information

SFO: 22

Line	DCN	IFMS	Budget/ FY	Appropriati on Code	Budget Org Code	Program Element	Object Class	Site Project	Cost Org Code	Amount
1	ENC035	XXX	11	TCD	06S	302EC7C	2505	A6CERP00	C001	\$26,661.00

Funding Summary:	Funding
Previous:	\$0.00
This Action:	\$26,661.00
Total:	\$26,661.00

Funding Category
Removal

Section

- Signed by Lisa Price/R6/USEPA/US on 09/22/2011 08:11:34 AM, according to Jeff Criner/start6/rfw-sta

: Lisa Price

Date: 09/22/2011

Phone #:

Project Officer Section - Signed by Cora Stanley/R6/USEPA/US on 09/28/2011 04:45:32 PM, according to Jef

Project Officer: Linda Carter

Date: 09/28/2011

Contracting Officer Section - Signed by Cora Stanley/R6/USEPA/US on 09/28/2011 04:45:32 PM, according t

Contracting Officer: Cora Stanley

Date: 09/28/2011

Contractor Section - Signed by Robert Beck/start6/rfw-start/us on 09/29/2011 09:36:05 AM, according to /

- No During the past three (3) calendar years has your company , or any of your employees that will
 Yes be working at this site , previously performed work at this site /facility?

Contractor Contact: Robert Beck

Date: 09/29/2011

APPENDIX D

LABORATORY DATA PACKAGES

WESTON SOLUTIONS, INC.

Section 12 Uranium Mine

**STANDARD LEVEL IV
REPORT OF ANALYSIS**

WORK ORDER #11-11067-OR

December 15, 2011

**EBERLINE ANALYTICAL/OAK RIDGE LABORATORY
OAK RIDGE, TN**

TABLE OF CONTENTS

SECTION	DESCRIPTION	PAGE
I	Chain of Custody & pH Check	0004
II	Sample Acknowledgement	0008
III	Case Narrative	0011
IV	Analytical Results Summary	0014
V	Analytical Standard	0016
VI	Quality Control Sample Results Summary	0020
VII	Laboratory Technician's Notes & Run Logs	0023
VIII	Analytical Data (Gamma Spectroscopy)	0028
	Last Page Number	0111

Eberline Services – Oak Ridge Laboratory
LABORATORY DATA SUPPORT CHECKLIST
 MP-001-3

 Eberline Services Work Order # 11-11067

The checklist items listed below are to be initialed by appropriate staff upon completion/verification.

Date for Partial	Initials	Date	Initials	Checklist Items
		11-11-11	JWM	Sample Log-In
		11/28/11	KBS	Data Compilation
		12-5-11	MLT	First Technical Data Review
		12/5/11	hm	Second Technical Data Review
		12/7/11	[Signature]	Data Entry/Electronic Deliverable
		12/7/11	[Signature]	Case Narrative
		12/14/11	eyt	Electronic Deliverable Proof
		12/14/11	[Signature]	Samples Analyzed within Holding Time Yes? <input type="checkbox"/> No? <input type="checkbox"/> YES
		12/14/11	[Signature]	QA/QC Review
				Client in Possession of Data Electronic or Hard Copy
				Invoiced by Laboratory

Technical/Clerical Corrections, Signatures Needed, Problems, Etc	Date/Initials

Date package approved by: [Signature] 12/15/11
Laboratory Manager Date

Copy No. _____

Radiochemistry Services

SECTION I
CHAIN OF CUSTODY
& pH CHECK

USEPA

Date Shipped: 11/10/2011
 Carrier Name: FedEx
 Airbill No: 795392961266

11-11067

CHAIN OF CUSTODY RECORD

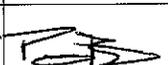
Section 12 Uranium Mine
 Contact Name: Kristie Warr
 Contact Phone: 713-985-6636

No: T00035110902-111110-0002

Cooler #: 1
 Lab: Eberline Services
 Lab Phone: 865-481-0683

Lab #	Sample #	Analyses	Matrix	Collected	Sample Time	Container	MS/MSD	Samp_Concentration
	ALSW-01-111107	Isotopic U, Isotopic Th (HOLD)	Surface Water	11/7/2011	15:00	500mL Polyethylene	N	<20,000 cpm
4	ALSW-01-111107	Gamma Spectroscopy	Surface Water	11/7/2011	15:00	4 L cubitainer	N	<20,000 cpm
	BKGD-E-31-111107	Gamma Spectroscopy	Soil	11/7/2011	15:06	16 oz jar	N	41,447 cpm
	BKGD-N-31-111107	Gamma Spectroscopy	Soil	11/7/2011	15:18	16 oz jar	N	18,444 cpm
	BKGD-S-31-111107	Gamma Spectroscopy	Soil	11/7/2011	15:45	16 oz jar	N	15,785 cpm
	BKGD-W-31-111107	Gamma Spectroscopy	Soil	11/7/2011	15:25	16 oz jar	N	17,800 cpm
	S12-12-31-111107	Gamma Spectroscopy	Soil	11/7/2011	14:20	16 oz jar	N	74,861 cpm
	S12-14-31-111107	Gamma Spectroscopy	Soil	11/7/2011	14:25	16 oz jar	N	144,468 cpm
	S12-22-31-111107	Gamma Spectroscopy	Soil	11/7/2011	14:40	16 oz jar	N	136,438 cpm
	S12-33-31-111107	Gamma Spectroscopy	Soil	11/7/2011	14:14	16 oz jar	N	231,451 cpm
	S12-34-31-111107	Gamma Spectroscopy	Soil	11/7/2011	14:12	16 oz jar	N	241,022 cpm
	S12-34-32-111107	Gamma Spectroscopy	Soil	11/7/2011	14:12	16 oz jar	N	241,022 cpm
	S12-35-31-111107	Gamma Spectroscopy	Soil	11/7/2011	14:10	16 oz jar	N	203,006 cpm
	S12-52-31-111107	Gamma Spectroscopy	Soil	11/7/2011	14:56	16 oz jar	N	137,567 cpm
	S12-56-31-111107	Gamma Spectroscopy	Soil	11/7/2011	14:49	16 oz jar	N	106,454 cpm
	S12-64-31-111107	Gamma Spectroscopy	Soil	11/7/2011	14:52	16 oz jar	N	38,998 cpm

Special Instructions: Level IV Deliverable, Standard TAT. HOLD Alpha Spec for Isotopic U and Th ASTM 3972-90M until Gamma Spec results are aquired.	SAMPLES TRANSFERRED FROM CHAIN OF CUSTODY #
---	--

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
16/samples		11/9/11	Justin McHammy	11-11-11	0900						

REC'D NOV 11 2011

3030



Internal Chain of Custody

Work Order #	11-11067
Lab Deadline	12/5/2011
Analysis	Gamma - Level 4
Sample Matrix	Water

Comments	Sample Fraction	HP 210 / 270 Detector Activity	Storage Location
<p><i>KBA 11/23/11</i></p> <p>21-day ingrowth: Report Ac228, Bi214, K40, Pa234m, Pb212/214, Th234, Tl208, Ra226 from Bi214 & any positives.</p>	04	33	U1.2

	Location (circle one)					Initials	Date
	Sample Storage	Rough Prep	Prep	Separations	Count Room		
Received by	<u>Sample Storage</u>					<i>MM</i>	<i>22 Nov 11</i>
Relinquished by	Sample Storage		<u>Prep</u>			<i>MG</i>	<i>23 Nov 11 0730</i>
Received by	Sample Storage				<u>Count Room</u>	<i>[Signature]</i>	<i>11/23/11 0730</i>
Relinquished by	Sample Storage				<u>Count Room</u>	<i>[Signature]</i>	<i>11/28/11 0557</i>
Received by	<u>Sample Storage</u>						
Relinquished by	Sample Storage						
Received by	Sample Storage						
Relinquished by	Sample Storage						
Received by	Sample Storage						
Relinquished by	Sample Storage						
Received by	Sample Storage						
Relinquished by	Sample Storage						

	Sample Receiving Report (Volumes, pH, & CPM)	Internal Work Order
		11-11067
		Received By JMCKAMEY

FR	ClientID	# Btls	Comments	Matrix	Storage	Rec Vol Ttl	CPM Max	
01	LCS	0		WA	U1.2			
02	BLANK	0		WA	U1.2			
03	DUP	0		WA	U1.2			
04	ALSW-01-111107 /	2		WA	U1.2	4.26	33	
				Container Number	pH Orig	pH Final	Volume (L)	CPM
				1	7	<2	3.7600	33
				2	<2	<2	0.5000	33

JMCK
11/11/11

Received by: *Justin McKamey* Date: 11-11-11

SECTION II
SAMPLE ACKNOWLEDGEMENT

Client Name Weston Solutions, Inc.	Contract/PO 0070138	Project Type Environmental	Date Received 11/11/2011	Required Turnaround Days 28	Eberline Services Work Order 11-11067
Project Name 0070138 U Mines	Client WO Section 12 Uranium Mine	Sample Disp W	Lab Deadline 12/05/2011	Internal Deadline 12/08/2011	Client Deadline 12/09/2011

Internal ID	Client ID	Sample Date	Matrix	Storage	Gamma																		TU
01	LCS	11/11/11	WA	U1.2	X																		1
02	BLANK	11/11/11	WA	U1.2	X																		1
03	DUP	11/11/11	WA	U1.2	X																		1
04	ALSW-01-111107	11/07/11 15:00	WA	U1.2	X																		1
																							0
																							0
																							0
																							0
																							0
																							0
																							0
																							0
																							0
																							0
																							0
																							0
																							0
																							0
																							0
																							0
																							0
Totals Per Analysis (non QA samples)						1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

<p>EBERLINE SERVICES</p> <p>Sample Log In Report</p>	<p>Oak Ridge Laboratory 601 Scarboro Rd. Oak Ridge, TN 37830</p> <p>Voice: (865) 481-0683 Fax: (865) 483-4621</p>	<p>Invoice</p>	<p>ACCOUNTS PAYABLE</p> <p>Weston Solutions, Inc.</p> <p>5599 San Felipe Suite 700</p> <p>Houston, TX 77056</p> <p>Voice 713-985-6686 Fax 713-985-6703</p>	<p>Report Data</p>	<p>Kristie Warr</p> <p>Weston Solutions, Inc.</p> <p>5599 San Felipe Suite 700</p> <p>Houston, TX 77056</p> <p>Voice 713-985-6636 Fax 713-985-6703</p>
		<p>Contact</p>	<p>Kristie Warr</p> <p>Voice 713-985-6636 Fax 713-985-6703</p>		

000000



STANDARD OPERATING PROCEDURE

Sample Receiving

MP-001, Rev. 11
Effective: 10/31/09
Page 13 of 14

Eberline Services – Oak Ridge Laboratory

SAMPLE RECEIPT CHECKLIST MP-001-2

WORK ORDER # 11-11067

SAMPLE MATRIX/MATRICES:

(CIRCLE ONE OR BOTH)

AQUEOUS NON-AQUEOUS

(CIRCLE EITHER YES, NO, OR N/A)

WERE SAMPLES:

Received in good condition?	<input checked="" type="radio"/> Y	N	
If aqueous, properly preserved	<input checked="" type="radio"/> Y	N	N/A

WERE CHAIN OF CUSTODY SEALS:

Present on outside of package?	<input checked="" type="radio"/> Y	N
Unbroken on outside of package?	<input checked="" type="radio"/> Y	N
Present on samples?	<input checked="" type="radio"/> Y	N
Unbroken on samples?	<input checked="" type="radio"/> Y	N
Was chain of custody present upon sample receipt?	<input checked="" type="radio"/> Y	N

IF THE RESPONSE TO ANY OF THE ABOVE IS NO, A DISCREPANT SAMPLE RECEIPT REPORT (DSR) HAS BEEN ISSUED.

REMARKS: (1) 4L cube of unpreserved H₂O.

(1) 500 mL of preserved H₂O.

SIGNATURE: Justin McHamy DATE: 11-11-11

SECTION III
CASE NARRATIVE



EBERLINE ANALYTICAL CORPORATION
601 SCARBORO ROAD
OAK RIDGE, TENNESSEE 37830
PHONE (865) 481-0683
FAX (865) 483-4621

EBS-OR-33097

December 15, 2011

Kristie Warr
Weston Solutions, Inc.
5599 San Felipe Suite 700
Houston, TX 77056

CASE NARRATIVE
Work Order # 11-11067-OR

SAMPLE RECEIPT

This work order contains one water sample received 11/11/2011. This sample was analyzed by Gamma Spectroscopy.

<u>CLIENT ID</u>	<u>LAB ID</u>
ALSW-01-111107	11-11067-04

ANALYTICAL METHODS

Gamma Spectroscopy was performed using EPA Method 901.1 Modified.

ANALYTICAL RESULTS

Combined Standard Uncertainty is reported at 2-sigma value.

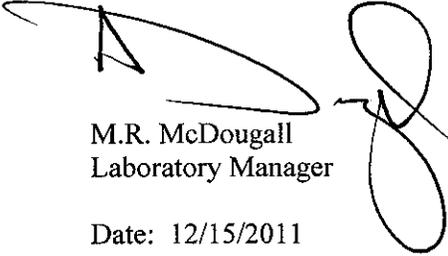
GAMMA SPECTROSCOPY

Sample for Gamma Spectroscopy analysis was prepared by transferring a known mass/aliquot of the prepared and homogenized sample to a standard geometry container. Sample was counted on a High Purity Germanium (HPGe) gamma ray detector.

Sample demonstrated acceptable results for all gamma-emitting radionuclides as reported. The method blank demonstrated acceptable results for all radionuclides as reported. Results for the Actinium-228, Bismuth-214 and Potassium-40 duplicate demonstrated a high relative percent difference; however, normalized difference is within acceptable limits for the analytical technique. Results for the Cobalt-60 and Cesium-137 laboratory control sample demonstrated an acceptable percent recovery.

CERTIFICATION OF ACCURACY

I certify that this data report is in compliance with the terms and conditions of the Purchase Order, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the cognizant project manager or his/her designee to be accurate as verified by the following signature.



M.R. McDougall
Laboratory Manager

Date: 12/15/2011

SECTION IV
ANALYTICAL RESULTS SUMMARY

<h1 style="margin: 0;">Eberline Analytical</h1> <h2 style="margin: 0;">Final Report of Analysis</h2>			Report To:					Work Order Details:						
			Kristie Warr Weston Solutions, Inc. 5599 San Felipe Suite 700 Houston, TX 77056					SDG:	11-11067					
								Purchase Order:	0070138					
								Analysis Category:	ENVIRONMENTAL					
					Sample Matrix:		WA							
Lab ID	Sample Type	Client ID	Sample Date	Receipt Date	Analysis Date	Batch ID	Analyte	Method	Result	CU	CSU	MDA	Report Units	
11-11067-01	LCS	KNOWN	11/11/11 00:00	11/11/2011	11/26/2011	11-11067	Cobalt-60	EPA 901.1 Modified	1.94E+05	7.65E+03			pCi/l	
11-11067-01	LCS	KNOWN	11/11/11 00:00	11/11/2011	11/26/2011	11-11067	Cesium-137	EPA 901.1 Modified	1.21E+05	4.85E+03			pCi/l	
11-11067-01	LCS	SPIKE	11/11/11 00:00	11/11/2011	11/26/2011	11-11067	Cobalt-60	EPA 901.1 Modified	1.96E+05	1.31E+04	1.65E+04	1.34E+03	pCi/l	
11-11067-01	LCS	SPIKE	11/11/11 00:00	11/11/2011	11/26/2011	11-11067	Cesium-137	EPA 901.1 Modified	1.26E+05	1.24E+04	1.40E+04	9.78E+02	pCi/l	
11-11067-02	MBL	BLANK	11/11/11 00:00	11/11/2011	11/25/2011	11-11067	Actinium-228	EPA 901.1 Modified	1.18E+00	1.30E+01	1.30E+01	2.51E+01	pCi/l	
11-11067-02	MBL	BLANK	11/11/11 00:00	11/11/2011	11/25/2011	11-11067	Bismuth-214	EPA 901.1 Modified	5.21E+00	9.23E+00	9.23E+00	1.65E+01	pCi/l	
11-11067-02	MBL	BLANK	11/11/11 00:00	11/11/2011	11/25/2011	11-11067	Potassium-40	EPA 901.1 Modified	5.27E+00	3.90E+01	3.90E+01	8.02E+01	pCi/l	
11-11067-02	MBL	BLANK	11/11/11 00:00	11/11/2011	11/25/2011	11-11067	Protactinium-234m	EPA 901.1 Modified	-3.49E+02	3.91E+02	3.91E+02	6.36E+02	pCi/l	
11-11067-02	MBL	BLANK	11/11/11 00:00	11/11/2011	11/25/2011	11-11067	Lead-212	EPA 901.1 Modified	-1.34E+00	4.81E+00	4.81E+00	7.75E+00	pCi/l	
11-11067-02	MBL	BLANK	11/11/11 00:00	11/11/2011	11/25/2011	11-11067	Lead-214	EPA 901.1 Modified	8.45E-01	7.52E+00	7.52E+00	1.25E+01	pCi/l	
11-11067-02	MBL	BLANK	11/11/11 00:00	11/11/2011	11/25/2011	11-11067	Radium-226	EPA 901.1 Modified	2.41E+00	9.23E+00	9.23E+00	1.65E+01	pCi/l	
11-11067-02	MBL	BLANK	11/11/11 00:00	11/11/2011	11/25/2011	11-11067	Thorium-234	EPA 901.1 Modified	-7.41E-01	4.73E+01	4.73E+01	8.13E+01	pCi/l	
11-11067-02	MBL	BLANK	11/11/11 00:00	11/11/2011	11/25/2011	11-11067	Thallium-208	EPA 901.1 Modified	-8.45E-01	1.09E+01	1.09E+01	1.84E+01	pCi/l	
11-11067-03	DUP	ALSW-01-111107	11/07/11 15:00	11/11/2011	11/25/2011	11-11067	Actinium-228	EPA 901.1 Modified	-2.00E+00	7.96E+00	7.96E+00	1.42E+01	pCi/l	
11-11067-03	DUP	ALSW-01-111107	11/07/11 15:00	11/11/2011	11/25/2011	11-11067	Bismuth-214	EPA 901.1 Modified	3.24E+00	5.35E+00	5.35E+00	1.01E+01	pCi/l	
11-11067-03	DUP	ALSW-01-111107	11/07/11 15:00	11/11/2011	11/25/2011	11-11067	Potassium-40	EPA 901.1 Modified	4.34E+01	2.88E+01	2.88E+01	3.40E+01	pCi/l	
11-11067-03	DUP	ALSW-01-111107	11/07/11 15:00	11/11/2011	11/25/2011	11-11067	Protactinium-234m	EPA 901.1 Modified	2.07E+01	2.45E+02	2.45E+02	4.69E+02	pCi/l	
11-11067-03	DUP	ALSW-01-111107	11/07/11 15:00	11/11/2011	11/25/2011	11-11067	Lead-212	EPA 901.1 Modified	-2.71E-02	3.48E+00	3.48E+00	6.45E+00	pCi/l	
11-11067-03	DUP	ALSW-01-111107	11/07/11 15:00	11/11/2011	11/25/2011	11-11067	Lead-214	EPA 901.1 Modified	-5.93E+00	4.75E+00	4.76E+00	7.34E+00	pCi/l	
11-11067-03	DUP	ALSW-01-111107	11/07/11 15:00	11/11/2011	11/25/2011	11-11067	Radium-226	EPA 901.1 Modified	3.24E+00	5.35E+00	5.35E+00	1.01E+01	pCi/l	
11-11067-03	DUP	ALSW-01-111107	11/07/11 15:00	11/11/2011	11/25/2011	11-11067	Thorium-234	EPA 901.1 Modified	-1.48E+01	4.47E+01	4.47E+01	7.73E+01	pCi/l	
11-11067-03	DUP	ALSW-01-111107	11/07/11 15:00	11/11/2011	11/25/2011	11-11067	Thallium-208	EPA 901.1 Modified	-1.98E-01	6.76E+00	6.76E+00	1.28E+01	pCi/l	
11-11067-04	DO	ALSW-01-111107	11/07/11 15:00	11/11/2011	11/26/2011	11-11067	Actinium-228	EPA 901.1 Modified	4.42E+00	8.04E+00	8.05E+00	1.59E+01	pCi/l	
11-11067-04	DO	ALSW-01-111107	11/07/11 15:00	11/11/2011	11/26/2011	11-11067	Bismuth-214	EPA 901.1 Modified	5.91E+00	5.59E+00	5.60E+00	1.08E+01	pCi/l	
11-11067-04	DO	ALSW-01-111107	11/07/11 15:00	11/11/2011	11/26/2011	11-11067	Potassium-40	EPA 901.1 Modified	2.58E+01	2.95E+01	2.95E+01	6.41E+01	pCi/l	
11-11067-04	DO	ALSW-01-111107	11/07/11 15:00	11/11/2011	11/26/2011	11-11067	Protactinium-234m	EPA 901.1 Modified	-1.00E+02	2.38E+02	2.38E+02	4.23E+02	pCi/l	
11-11067-04	DO	ALSW-01-111107	11/07/11 15:00	11/11/2011	11/26/2011	11-11067	Lead-212	EPA 901.1 Modified	-4.14E-01	3.52E+00	3.52E+00	6.47E+00	pCi/l	
11-11067-04	DO	ALSW-01-111107	11/07/11 15:00	11/11/2011	11/26/2011	11-11067	Lead-214	EPA 901.1 Modified	8.71E+00	5.93E+00	5.95E+00	5.77E+00	pCi/l	
11-11067-04	DO	ALSW-01-111107	11/07/11 15:00	11/11/2011	11/26/2011	11-11067	Radium-226	EPA 901.1 Modified	5.91E+00	5.59E+00	5.60E+00	1.08E+01	pCi/l	
11-11067-04	DO	ALSW-01-111107	11/07/11 15:00	11/11/2011	11/26/2011	11-11067	Thorium-234	EPA 901.1 Modified	-2.14E+00	4.51E+01	4.51E+01	7.89E+01	pCi/l	
11-11067-04	DO	ALSW-01-111107	11/07/11 15:00	11/11/2011	11/26/2011	11-11067	Thallium-208	EPA 901.1 Modified	-3.34E+00	6.55E+00	6.55E+00	1.19E+01	pCi/l	

CU=Counting Uncertainty;CSU=Combined Standard Uncertainty (2-sigma);MDA=Minimal Detected Activity;LCS=Laboratory Control Sample; MBL=Blank; DUP=Duplicate; TRG=Normal Sample; DO=Duplicate Original



EBERLINE ANALYTICAL CORPORATION

601 SCARBORO ROAD OAK RIDGE, TN 37830 865/481-0683 FAX 865/483-4621

SECTION V
ANALYTICAL STANDARD

CERTIFICATE OF CALIBRATION
Standard Radionuclide Source

GAW-11
CAS 1107
~~HPGe~~

83906-416

500 mL Solid in 590G GA-MA Beaker

Customer: Eberline Services / Eberline Analytical Corp.

P.O. No.: 6705, Item 1

Reference Date: 01-Jan-2011 12:00 PM EST **Grams of Master Source:** 0.016757

This standard radionuclide source was prepared using aliquots measured gravimetrically from master radionuclide solutions. Calibration and purity were checked using a germanium gamma spectrometer system. At the time of calibration no interfering gamma-ray emitting impurities were detected. The gamma-ray emission rates for the most intense gamma-ray lines are given. Eckert & Ziegler Analytics (EZA) maintains traceability to the National Institute of Standards and Technology through a Measurements Assurance Program as described in USNRC Regulatory Guide 4.15, Revision 1, February, 1979, and compliance with ANSI N42.22-1995, "Traceability of Radioactive Sources to NIST." EZA is accredited by the Health Physics Society (HPS) for the production of NIST-traceable sources, and this source was produced in accordance with the HPS accreditation requirements. Customers may report any concerns with the accreditation program to the HPS Secretariat, 1313 Dolley Madison Blvd., Ste. 402, McLean, VA 22101. Density of solid matrix 1.15 g/cc.

Nuclide	Gamma-Ray Energy (keV)	Half-Life, Days	Master Source* μ ps/gram	This Source μ ps	Uncertainty, %			Calibration Method
					u_A	u_B	U	
Am-241	59.5	1.580E+05	—	2.069E+03	0.1	1.7	3.5	4 π LS
Cd-109	88.0	4.626E+02	1.697E+05	2.844E+03	0.8	2.3	4.9	HPGe
Co-57	122.1	2.718E+02	8.711E+04	1.460E+03	0.5	2.0	4.1	HPGe
Ce-139	165.9	1.376E+02	1.247E+05	2.090E+03	0.5	1.9	3.9	HPGe
Hg-203	279.2	4.661E+01	2.753E+05	4.613E+03	0.4	1.9	3.9	HPGe
Sn-113	391.7	1.151E+02	1.769E+05	2.964E+03	0.5	1.9	3.9	HPGe
Cs-137	661.7	1.098E+04	1.109E+05	1.858E+03	0.7	1.9	4.0	HPGe
Y-88	898.0	1.066E+02	4.224E+05	7.078E+03	0.5	1.9	3.9	HPGe
Co-60	1173.2	1.925E+03	2.142E+05	3.589E+03	0.6	1.9	4.0	HPGe
Co-60	1332.5	1.925E+03	2.143E+05	3.591E+03	0.6	1.9	4.0	HPGe
Y-88	1836.1	1.066E+02	4.472E+05	7.494E+03	0.5	1.9	3.9	HPGe

* Master Source refers to Analytics' B-isotope mixture which is calibrated quarterly.

Calibration Methods: 4 π LS - 4 pi Liquid Scintillation Counting, HPGe - High Purity Germanium Gamma-Ray Spectrometer, IC - Ionization Chamber. **Uncertainty:** U - Relative expanded uncertainty, k = 2. See NIST Technical Note 1297, "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Results."

(Certificate continued on reverse side)



CERTIFICATE OF CALIBRATION
Standard Radionuclide Source

GAW-10

81336-416

500 mL Solid in 590G GA-MA Beaker

Customer: Eberline Services / Eberline Analytical Corp. / Oak Ridge
P.O. No.: 5964, Item 1

Reference Date: 01-Jan-2010 12:00 PM EST **Grams of Master Source:** 0.017424

This standard radionuclide source was prepared using aliquots measured gravimetrically from master radionuclide solutions. Calibration and purity were checked using a germanium gamma spectrometer system. At the time of calibration no interfering gamma-ray emitting impurities were detected. The gamma-ray emission rates for the most intense gamma-ray lines are given. Eckert & Ziegler Analytics (EZA) maintains traceability to the National Institute of Standards and Technology through a Measurements Assurance Program as described in USNRC Regulatory Guide 4.15, Revision 1, February, 1979, and compliance with ANSI N42.22-1995, "Traceability of Radioactive Sources to NIST." EZA is accredited by the Health Physics Society (HPS) for the production of NIST-traceable sources, and this source was produced in accordance with the HPS accreditation requirements. Customers may report any concerns with the accreditation program to the HPS Secretariat, 1313 Dolley Madison Blvd., Ste. 402, McLean, VA 22101. Density of solid matrix 1.15 g/cc.

Nuclide	Gamma-Ray Energy (keV)	Half-Life, Days	Master Source* γ ps/gram	This Source γ ps	Uncertainty, %			Calibration Method
					u_A	u_B	U	
Am-241	59.5	1.580E+05	—	2.017E+03	0.1	1.7	3.5	4 π LS
Cd-109	88.0	4.626E+02	1.606E+05	2.798E+03	0.4	2.3	4.7	HPGe
Co-57	122.1	2.718E+02	8.471E+04	1.476E+03	0.5	2.0	4.1	HPGe
Ce-139	165.9	1.376E+02	1.209E+05	2.107E+03	0.4	1.9	3.9	HPGe
Hg-203	279.2	4.661E+01	2.726E+05	4.750E+03	0.4	1.9	3.9	HPGe
Sn-113	391.7	1.151E+02	1.672E+05	2.913E+03	0.5	1.9	3.9	HPGe
Cs-137	661.7	1.098E+04	1.096E+05	1.910E+03	0.6	1.9	4.0	HPGe
Y-88	898.0	1.066E+02	4.077E+05	7.104E+03	0.4	1.9	3.9	HPGe
Co-60	1173.2	1.925E+03	2.055E+05	3.581E+03	0.5	1.9	3.9	HPGe
Co-60	1332.5	1.925E+03	2.056E+05	3.582E+03	0.7	1.9	4.0	HPGe
Y-88	1836.1	1.066E+02	4.308E+05	7.506E+03	0.5	1.9	3.9	HPGe

* Master Source refers to Analytics' 8-isotope mixture which is calibrated quarterly.

Calibration Methods: 4 π LS - 4 pi Liquid Scintillation Counting, HPGe - High Purity Germanium Gamma-Ray Spectrometer, IC - Ionization Chamber. **Uncertainty:** U - Relative expanded uncertainty, k = 2. See NIST Technical Note 1297, "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Results."

(Certificate continued on reverse side)



Comments:

Diameter of active area: 47 mm. Tall loose petri.

This standard will expire one year after the reference date.

Source Prepared by: M. I. Taskaeva
M. I. Taskaeva, Radiochemist

QA Approved: J. D. McCorvey
J. D. McCorvey, QA Manager Alternate

Date: 1/29/10



SECTION VI
QUALITY CONTROL SAMPLE RESULTS SUMMARY

WO	Analysis	Run	Activity Units	Aliquot Units	Client Name
11-11067	Gamma	1	pCi	I	Weston Solutions, Inc.

Laboratory Control Sample

Analyte	Normalized Difference	LCS Measured	CSU Measured	LCS Expected	Uncert. Expected	Known	Known Error	Result	CSU	Standard ID	Standard ACT (dpm)	Standard Error	Standard Added (g)
CO-60	0.22	100.98%	8.42%	100.00%	3.95%	1.94E+05	7.65E+03	1.96E+05	1.65E+04	GAW-10	1.94E+05	7.65E+03	5.00E-01
CS-137	0.64	103.88%	11.10%	100.00%	4.00%	1.21E+05	4.85E+03	1.26E+05	1.40E+04	GAW-10	1.21E+05	4.85E+03	5.00E-01

Matrix Spike

Analyte	Normalized Difference	MS Actual % Rec	Expected MS Result	Expected MS Uncert	Actual MS Result	Actual MS CSU	Sample Result	Sample CSU	Sample Aliquot	Standard ID	Standard ACT (dpm)	Standard Error %	Standard Added (g)

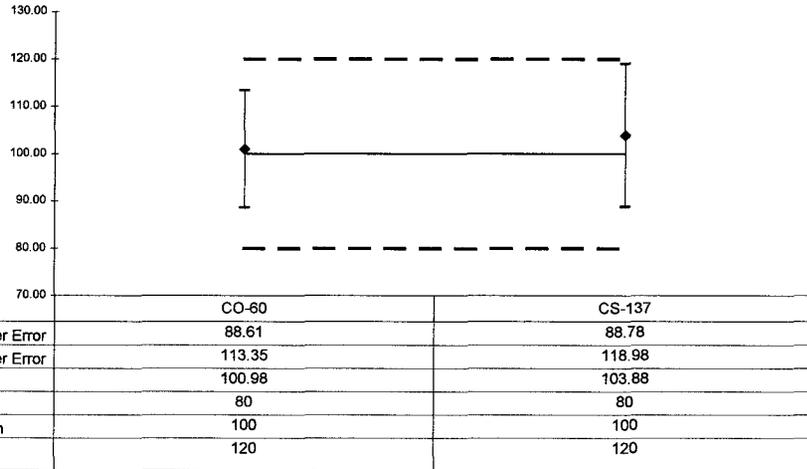
Replicate Sample

QC Summary

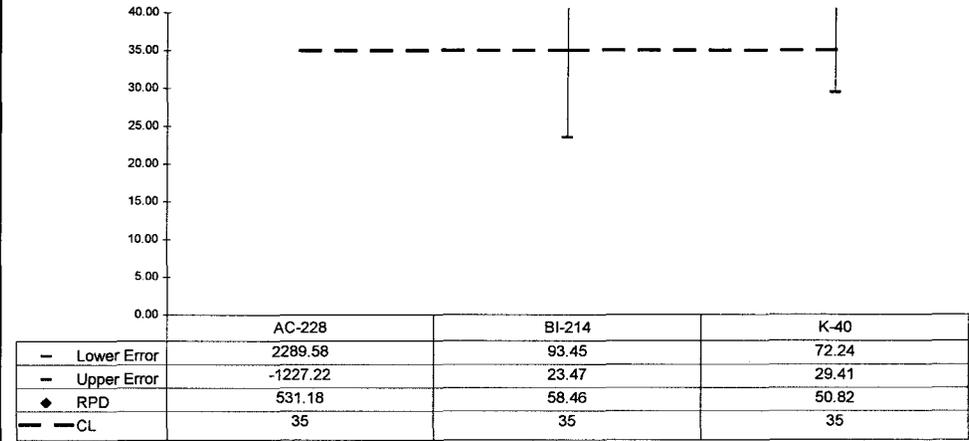
Analyte	Normalized Difference	RPD	Original Result	Original CSU	Replicate Result	Replicate CSU	LCS Relative Bias	LCS % R	LCS ND	MS % R	MS ND	Rep RPD	Rep ND
AC-228	1.11	531.18	4.42E+00	8.05E+00	-2.00E+00	7.96E+00	1.01	OK	OK	<CS-137	AC-228>	NA	
BI-214	0.68	58.46	5.91E+00	5.60E+00	3.24E+00	5.35E+00	1.04	OK	OK	<CO-60	BI-214>	NA	OK
K-40	0.84	50.82	2.58E+01	2.95E+01	4.34E+01	2.89E+01					K-40>	NA	OK

WO	Analysis	Run	Activity Units	Aliquot Units	Client Name
11-11067	Gamma	1	pCi	I	Weston Solutions, Inc.

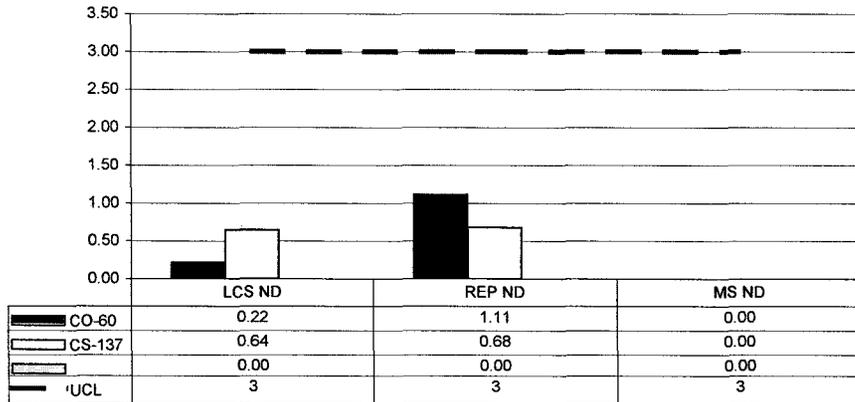
LCS % Recovery



Replicate Sample RPD



Normalized Difference



No Matrix Spike

SECTION VII
LABORATORY TECHNICIAN'S NOTES
&
RUN LOGS

 EBERLINE SERVICES Work Order Analysis Notes	Oak Ridge Laboratory 601 Scarboro Rd. Oak Ridge, TN 37830 Voice: 865.481.0683 www.eberlineservices.com	Internal Work Order	11-11067
		Analysis Code	Gamma
		Run Number	1

#	Date	Dept	User	Notes
1	11/22/11 10:36	PREP	MHIGHTOWER	Samples were aliquoted, concentrated, and submitted to count room

MU 22 NOV 11

GE 3

DATE	Sample #	Client	LoadTime	CTTime	Analysis	Tech
11/20/11	1110113-14	USA	1724	1 hr	Y	ICB
11/21/11	1110112-05	USA	1827	1 hr	Y	ICB
11/21/11	GAW 11	USA	0524	15m	Y	ICB
11/21/11	GAS-1102	USA	0548	15m	Y	ICB
11/21/11	GAS-1101	USA	0614	15m	Y	ICB
11/21/11	Daily Bkgd	USA	0625	15m	Y	ICB
11/21/11	1110112-06	USA	0701	2L	Y	ICB
11/21/11	1110112-08	USA	0807	2L	Y	ICB
11/21/11	1110112-12	USA	0807	2L	Y	ICB
11/21/11	111042-16	USA	1011	2L	Y	ICB
11/21/11	1110112-20	USA	1113	2L	Y	ICB
11/23/11	1110134-07	USA	1216	1 hr	Y	ICB
11/23/11	1110134-10	USA	1317	1 hr	Y	ICB
11/23/11	1110134-14	USA	1420	1 hr	Y	ICB
11/23/11	1110134-16	USA	1521	1 hr	Y	ICB
11/23/11	Chamber Bkgd	Lab	1624	24 hrs	Y	ICB
11/25/11	GAW 11	Lab	0430	15m	Y	ICB
11/25/11	GAS 1101	Lab	0447	15m	Y	ICB
11/25/11	GAS 1102	Lab	0507	15m	Y	ICB
11/25/11	Daily Bkgd	Lab	0525	15m	Y	ICB
11/25/11	GAS 1102	Lab	0609	15m	Y	ICB
11/25/11	1110141-03	MPA	0627	1 hr	Y	ICB
11/25/11	1110141-04	MPA	0728	1 hr	Y	ICB
11/25/11	1110141-10	MPA	0728	1 hr	Y	ICB
11/25/11	1110141-14	MPA	0930	1 hr	Y	ICB
11/25/11	1110145-06	CT. Dept.	1032	1 hr	Y	ICB
11/25/11	1110145-08	CT. Dept.	1133	1 hr	Y	ICB
11/25/11	1110145-11	CT. Dept.	1234	1 hr	Y	ICB
11/25/11	1110146-01	CT. Dept.	1335	30mins.	Y	ICB
11/25/11	111067-03	Weston	1411	2 hrs	Y	ICB
11/26/11	GAW 11	Lab	0424	15 min	Y	ICB
11/26/11	GAS 1101	Lab	0445	15 min	Y	ICB
11/26/11	Daily Bkgd	Lab	0503	15 min	Y	ICB
11/26/11	GAS 1102	Lab	0521	15 min	Y	ICB

GE 3

3

DATE	SAMPLE #	Client	Loatime	CITime	Analysis	Tech
11/26/11	1110146-07	CT. Dept	0541	1 hr	✓	ICB
11/26/11	1110146-11	CT. Dept.	0643	1 hr	✓	ICB
11/26/11	1110146-13	CT. Dept.	0744	1 hr	✓	ICB
11/26/11	1110135-07	USA	0845	1 hr	✓	ICB
11/26/11	1110135-11	USA	0946	1 hr	✓	ICB
11/26/11	1110135-14	USA	1046	1 hr	✓	ICB
11/26/11	1111667-04	Weston	1148	2 hr	✓	ICB

GE 4

101

DATE	Sample #	Client	Load Time	CT Time	Analysis	Tech
11/25/11	1110146-03	CT. Dept	1116	1 hr	Y	ICB
11/25/11	1110146-04	CT. Dept	1217	1 hr	Y	ICB
11/25/11	1110146-02	CT. Dept	1317	1 hr	Y	ICB
11/25/11	1111067-02	Weston	1419	2 hrs	Y	ICB
11/26/11	Daily Bkgd	Lab	0422	15 min	Y	ICB
11/26/11	GAW 11	Lab	0445	15 min	Y	ICB
11/26/11	GAS 1102	Lab	0538	15 min	Y	ICB
11/26/11	1110146-08	CT. Dept	0555	1 hr	Y	ICB
11/26/11	1110146-12	CT. Dept	0655	1 hr	Y	ICB
11/26/11	1110135-02	USA	0756	1 hr	Y	ICB
11/26/11	1110135-03	USA	0856	30 min	Y	ICB
11/26/11	1110135-08	USA	0927	1 hr	Y	ICB
11/26/11	1110135-12	USA	1027	1 hr	Y	ICB
11/26/11	1111067-01	Weston	1128	30 min	Y	ICB

SECTION VIII
ANALYTICAL DATA (GAMMA SPECTROSCOPY)

11-11067
Gamma
Run 1

Work Order	11-11067
Analysis Code	Gamma
Run	1
Date Received	11/11/2011
Lab Deadline	12/5/2011
Client	Weston Solutions, Inc.
Project	0070138 U Mines
Report Level	4
Activity Units	pCi
Aliquot Units	I
Matrix	WA
Method	EPA 901.1 Modified
Instrument Type	Gamma Spectroscopy
Radiometric Tracer	
Radiometric Sol#	
Tracer Act (dpm/g)	
Carrier	
Carrier Conc (mg/ml)	

Internal Fraction	Sample Desc	Client ID	Login CPM	Sample Date	Sample Aliquot
01	LCS	LCS		11/11/11 00:00	1.0000E+00
02	MBL	BLANK		11/11/11 00:00	2.0000E+00
03	DUP	ALSW-01-111107	33	11/07/11 15:00	2.0000E+00
04	DO	ALSW-01-111107	33	11/07/11 15:00	2.0000E+00

* SAF1 is used for Gross Alpha and all other radionuclides. SAF2 is used for Gross Beta only. ** Actual mass exceeded the calibration curve range. Results should be qualified as appropriate.

000000

Internal Fraction	Sample Desc	Tracer Aliquot (g)	Tracer Total ACT (dpm)	Radiometric Tracer (pCi)	Radiometric % Rec	Grav Carrier Added (ml)	Grav Filter Tare (g)	Grav Filter Final (g)	Grav Filter Net (g)	Grav % Rec	Mean % Rec	SAF 1*	SAF 2*
01	LCS				0.00								
02	MBL				0.00								
03	DUP				0.00								
04	DO				0.00								

* SAF1 is used for Gross Alpha and all other radionuclides. SAF2 is used for Gross Beta only. ** Actual mass exceeded the calibration curve range. Results should be qualified as appropriate.

<i>Internal Fraction</i>	<i>Sample Desc</i>	<i>Rough Prep Date</i>	<i>Rough Prep By</i>	<i>Prep Date</i>	<i>Prep By</i>	<i>Sep t0 Date/Time</i>	<i>Sep t0 By</i>	<i>Sep t1 Date/Time</i>	<i>Sep t1 By</i>
01	LCS								
02	MBL								
03	DUP								
04	DO								

* SAF1 is used for Gross Alpha and all other radionuclides. SAF2 is used for Gross Beta only. ** Actual mass exceeded the calibration curve range. Results should be qualified as appropriate.

Preliminary Data Report & Analytical Calculations
Work Order: 11-11067-Gamma-1

Lab Fraction	Nuclide	Sample Desc	Client Identification	Activity Units	Results	Error Estimate	MDA	LSC Known	LCS %R	LCS Flag	RPD Flag	Sample Date	Sample Aliquot	Counting Date/Time	Identified
01	CO-60	LCS	LCS	pCi/l	1.96E+05	1.31E+04	1.34E+03	1.94E+05	100.98	OK		11/11/11 00:00	1.00E+00	11/26/11 11:28	YES
01	CS-137	LCS	LCS	pCi/l	1.26E+05	1.24E+04	9.78E+02	1.21E+05	103.88	OK		11/11/11 00:00	1.00E+00	11/26/11 11:28	YES
02	AC-228	MBL	BLANK	pCi/l	1.18E+00	1.30E+01	2.51E+01					11/11/11 00:00	2.00E+00	11/25/11 14:19	NO
02	BI-214	MBL	BLANK	pCi/l	2.41E+00	9.23E+00	1.66E+01					11/11/11 00:00	2.00E+00	11/25/11 14:19	NO
02	K-40	MBL	BLANK	pCi/l	5.27E+00	3.90E+01	8.02E+01					11/11/11 00:00	2.00E+00	11/25/11 14:19	NO
02	PA-234M	MBL	BLANK	pCi/l	-3.49E+02	3.91E+02	6.36E+02					11/11/11 00:00	2.00E+00	11/25/11 14:19	NO
02	PB-212	MBL	BLANK	pCi/l	-1.34E+00	4.81E+00	7.75E+00					11/11/11 00:00	2.00E+00	11/25/11 14:19	NO
02	PB-214	MBL	BLANK	pCi/l	8.45E-01	7.52E+00	1.25E+01					11/11/11 00:00	2.00E+00	11/25/11 14:19	NO
02	RA-226	MBL	BLANK	pCi/l	2.41E+00	9.23E+00	1.66E+01					11/11/11 00:00	2.00E+00	11/25/11 14:19	NO
02	TH-234	MBL	BLANK	pCi/l	-7.41E-01	4.73E+01	8.13E+01					11/11/11 00:00	2.00E+00	11/25/11 14:19	NO
02	TL-208	MBL	BLANK	pCi/l	-8.45E-01	1.09E+01	1.84E+01					11/11/11 00:00	2.00E+00	11/25/11 14:19	NO
03	AC-228	DUP	ALSW-01-111107	pCi/l	-2.00E+00	7.96E+00	1.42E+01				NA	11/07/11 15:00	2.00E+00	11/26/11 14:11	NO
03	BI-214	DUP	ALSW-01-111107	pCi/l	3.24E+00	5.35E+00	1.01E+01				NA	11/07/11 15:00	2.00E+00	11/25/11 14:11	NO
03	K-40	DUP	ALSW-01-111107	pCi/l	4.34E+01	2.88E+01	3.40E+01				NA	11/07/11 15:00	2.00E+00	11/25/11 14:11	YES
03	PA-234M	DUP	ALSW-01-111107	pCi/l	2.07E+01	2.45E+02	4.69E+02					11/07/11 15:00	2.00E+00	11/25/11 14:11	NO
03	PB-212	DUP	ALSW-01-111107	pCi/l	-2.71E-02	3.48E+00	6.45E+00					11/07/11 15:00	2.00E+00	11/25/11 14:11	NO
03	PB-214	DUP	ALSW-01-111107	pCi/l	-5.93E+00	4.75E+00	7.34E+00					11/07/11 15:00	2.00E+00	11/25/11 14:11	NO
03	RA-226	DUP	ALSW-01-111107	pCi/l	3.24E+00	5.35E+00	1.01E+01					11/07/11 15:00	2.00E+00	11/25/11 14:11	NO
03	TH-234	DUP	ALSW-01-111107	pCi/l	-1.48E+01	4.47E+01	7.73E+01					11/07/11 15:00	2.00E+00	11/25/11 14:11	NO
03	TL-208	DUP	ALSW-01-111107	pCi/l	-1.98E-01	6.76E+00	1.28E+01					11/07/11 15:00	2.00E+00	11/25/11 14:11	NO
04	AC-228	DO	ALSW-01-111107	pCi/l	4.42E+00	8.04E+00	1.59E+01					11/07/11 15:00	2.00E+00	11/26/11 11:48	NO
04	BI-214	DO	ALSW-01-111107	pCi/l	5.91E+00	5.59E+00	1.08E+01					11/07/11 15:00	2.00E+00	11/26/11 11:48	NO
04	K-40	DO	ALSW-01-111107	pCi/l	2.58E+01	2.95E+01	6.41E+01					11/07/11 15:00	2.00E+00	11/26/11 11:48	NO
04	PA-234M	DO	ALSW-01-111107	pCi/l	-1.00E+02	2.38E+02	4.23E+02					11/07/11 15:00	2.00E+00	11/26/11 11:48	NO
04	PB-212	DO	ALSW-01-111107	pCi/l	-4.14E-01	3.52E+00	6.47E+00					11/07/11 15:00	2.00E+00	11/26/11 11:48	NO
04	PB-214	DO	ALSW-01-111107	pCi/l	8.71E+00	5.93E+00	5.77E+00					11/07/11 15:00	2.00E+00	11/26/11 11:48	YES
04	RA-226	DO	ALSW-01-111107	pCi/l	5.91E+00	5.59E+00	1.08E+01					11/07/11 15:00	2.00E+00	11/26/11 11:48	NO
04	TH-234	DO	ALSW-01-111107	pCi/l	-2.14E+00	4.51E+01	7.89E+01					11/07/11 15:00	2.00E+00	11/26/11 11:48	NO
04	TL-208	DO	ALSW-01-111107	pCi/l	-3.34E+00	6.55E+00	1.19E+01					11/07/11 15:00	2.00E+00	11/26/11 11:48	NO

0022

2 hrs

GE3
GE3

Internal Fraction	Sample Desc	Client ID	Sample Date	Sample Aliquot	Tracer Aliquot (g)	Tracer ACT (dpm)	Radiometric Tracer (pCi)	Radiometric % Rec	SAF 1*	SAF 2*
01	LCS	LCS	11/11/11 00:00	1.0000				0.00		
02	MBL	BLANK	11/11/11 00:00	2.0000				0.00		
03	DUP	ALSW-01-111107	11/07/11 15:00	2.0000				0.00		
04	DO	ALSW-01-111107	11/07/11 15:00	2.0000				0.00		

Aliquot Worksheet

Work Order	Run	Analysis Code	Rpt Units	Lab Deadline	Technician
11-11067	1	Gamma	liters	12/5/2011	MHIGHTOWER

Lab Fraction	Weston Solutions, Inc. Client ID	Sample Type	Muffle Data	Dilution Data			Aliquot Data		MS Aliquot Data		H-3 Solids Only	
			Ratio Post/Pre	No of Diis	Dil Factor	Ratio	Aliquot	Net Equiv	Aliquot	Net Equiv	Water Added (ml)	H3 Dist Aliq
01	LCS	LCS					1.0000E+00	1.0000E+00				
02	BLANK	MBL					2.0000E+00	2.0000E+00				
03	ALSW-01-111107	DUP					2.0000E+00	2.0000E+00				
04	ALSW-01-111107	DO					2.0000E+00	2.0000E+00				

Comments

Technician: Mhv Date: 11, 22, 11

Sample ID : 1111067-01

Acquisition date : 26-NOV-2011 11:28:27

103
11/26/14

VAX/VMS Peak Search Report Generated 26-NOV-2011 11:59:55.05

Configuration : DKA100: [GAMMA.SCUSR.ARCHIVE] SMP_111106701_GE4_GAW11_171360.CN
Analyses by : PEAK V16.9 ENBACK V1.6 PEAKEFF V2.2
Client ID : GAW 10
Deposition Date :
Sample Date : 1-JAN-2010 00:00:00. Acquisition date : 26-NOV-2011 11:28:27
Sample ID : 1111067-01 Sample Quantity : 5.00000E-01 liter
Sample type : WATER Sample Geometry : 0
Detector name : GE4 Detector Geometry: GAW-11
Elapsed live time: 0 00:30:00.00 Elapsed real time: 0 00:31:12.77 3.9%
Start channel : 5 End channel : 4096
Sensitivity : 2.40000 Gaussian : 15.00000
Critical level : Yes

Post-NID Peak Search Report

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides
2	21.97	692271	64161	2.34	21.36	18	11	0.3	1.42E+03	
2	25.19*	158222	24257	2.01	24.59	18	11	1.0		
0	32.13	5818	18668	2.23	31.53	30	6	7.9		
1	43.79	4638	21734	2.17	43.20	39	24	11.3	2.21E+03	
1	49.79	19360	21407	2.18	49.20	39	24	3.3		TH-230
1	59.45	173261	20022	2.19	58.87	39	24	0.6		AM-241
0	68.69	5327	33587	5.13	68.11	64	10	13.1		TH-230
0	88.07	91402	30030	2.14	87.50	82	12	1.0		SN-126
										CD-109
0	122.13*	21914	14734	2.15	121.57	116	11	2.5		CO-57
0	136.45	2609	10909	1.94	135.90	132	9	15.0		CO-57
0	165.93	4658	10451	2.14	165.40	161	10	8.7		CE-139
0	185.70*	339	8450	3.61	185.18	183	8	94.4		RA-226
0	310.35	205	4550	3.49	309.88	308		6105.0		
0	358.39	202	3971	1.14	357.95	356	6	99.7		
0	391.93	1227	6045	2.30	391.51	387	9	23.5		SN-113
0	596.07	162	2611	4.09	595.75	592		7105.6		
0	661.87	30904	4070	2.30	661.57	657	11	1.4		CS-137
0	692.24	126	1581	2.52	691.96	690	5	96.2		
0	823.17	145	2208	2.91	822.95	820		6103.9		
0	898.66	1028	4505	2.38	898.48	894	10	25.2		Y-88
0	991.13	183	2973	1.25	991.00	987		8104.2		
0	1015.35	207	2767	6.61	1015.23	1011	8	89.3		
0	1132.33	113	1221	3.58	1132.27	1130		6100.5		
0	1147.05	113	1293	3.32	1147.00	1144		7106.9		
3	1164.40	190	1729	3.18	1164.35	1159	21	82.2	2.13E+00	
3	1173.54	24611	1162	2.38	1173.50	1159	21	1.4		CO-60
0	1258.92	62	333	3.48	1258.92	1257	7	99.9		
0	1332.85	22485	774	2.57	1332.89	1326	14	1.4		CO-60
0	1353.68	132	259	2.81	1353.72	1349	11	50.4		
0	1474.91	27	89	3.26	1475.02	1472		7121.8		
0	1836.56	505	70	2.90	1836.85	1833	10	10.9		Y-88
1	2144.30	19	15	2.96	2144.73	2142	12	74.4	1.64E+00	
1	2149.83	17	21	2.96	2150.27	2142	12	98.4		
0	2333.69	19	15	3.12	2334.21	2328	12	92.0		
0	2351.61	26	3	5.94	2352.15	2346	13	49.1		

AG
11/28/11

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides
0	2496.23	6	4	1.02	2496.83	2491	8141.4			
0	2506.25	161	4	2.56	2506.86	2501	13	16.4		
0	2734.61	9	0	1.66	2735.33	2732	7	66.7		

Summary of Nuclide Activity

Sample ID : 1111067-01

Acquisition date : 26-NOV-2011 11:28:27

Total number of lines in spectrum 38
 Number of unidentified lines 19
 Number of lines tentatively identified by NID 19 50.00%

Nuclide Type : FISSION

Nuclide	Hlife	Decay	Wtd Mean		Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
			Uncorrected pCi/liter	Decay Corr pCi/liter			
CO-57	270.90D	5.91	1.725E+04	1.020E+05	0.096E+05	9.41	
Y-88	106.60D	91.4	4.615E+03	4.220E+05	0.530E+05	12.57	
CD-109	464.00D	2.82	1.481E+06	4.179E+06	0.534E+06	12.79	
SN-113	115.10D	65.5	3.465E+03	2.270E+05	0.587E+05	25.85	
SN-126	1.00E+05Y	1.00	1.488E+05	1.488E+05	0.168E+05	11.27	
CS-137	30.17Y	1.04	1.206E+05	1.260E+05	0.124E+05	9.85	
CE-139	137.66D	33.0	4.677E+03	1.544E+05	0.195E+05	12.66	
Total Activity :			1.780E+06	5.359E+06			

Nuclide Type : ACTIVATION

Nuclide	Hlife	Decay	Wtd Mean		Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
			Uncorrected pCi/liter	Decay Corr pCi/liter			
CO-60	5.27Y	1.28	1.522E+05	1.955E+05	0.131E+05	6.68	
TH-230	7.70E+04Y	1.00	7.804E+04	7.804E+04	0.749E+04	9.60	
Total Activity :			2.303E+05	2.735E+05			

Nuclide Type : NATURAL

Nuclide	Hlife	Decay	Wtd Mean		Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
			Uncorrected pCi/liter	Decay Corr pCi/liter			
RA-226	1602.00Y	1.00	9.110E+03	9.118E+03	18.79E+03	206.06	
AM-241	432.20Y	1.00	2.992E+05	3.001E+05	0.245E+05	8.17	
Total Activity :			3.083E+05	3.093E+05			

Grand Total Activity : 2.319E+06 5.942E+06

Flags: "K" = Keyline not found
 "E" = Manually edited

"M" = Manually accepted
 "A" = Nuclide specific abn. limit

Nuclide Type: FISSION

Nuclide	Energy	%Abn	%Eff	Uncorrected pCi/liter	Decay Corr pCi/liter	2-Sigma %Error	Status
CO-57	122.06	85.51*	4.484E+00	1.716E+04	1.015E+05	10.95	OK
	136.48	10.60	4.227E+00	1.749E+04	1.034E+05	18.44	OK

Final Mean for 2 Valid Peaks = 1.020E+05+/- 9.597E+03 (9.41%)

Y-88	898.02	93.40	6.460E-01	5.115E+03	4.677E+05	27.23	OK
	1836.01	99.38*	3.386E-01	4.510E+03	4.124E+05	14.15	OK

Final Mean for 2 Valid Peaks = 4.220E+05+/- 5.305E+04 (12.57%)

CD-109	88.03	3.72*	4.983E+00	1.481E+06	4.179E+06	12.79	OK
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Final Mean for 1 Valid Peaks = 4.179E+06+/- 5.344E+05 (12.79%)

SN-113	255.12	1.93	2.572E+00	-----	Line Not Found	-----	Absent
	391.69	64.90*	1.639E+00	3.465E+03	2.270E+05	25.85	OK

Final Mean for 1 Valid Peaks = 2.270E+05+/- 5.867E+04 (25.85%)

SN-126	87.57	37.00*	4.987E+00	1.488E+05	1.488E+05	11.27	OK
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Final Mean for 1 Valid Peaks = 1.488E+05+/- 1.676E+04 (11.27%)

CS-137	661.65	85.12*	9.043E-01	1.206E+05	1.260E+05	9.85	OK
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Final Mean for 1 Valid Peaks = 1.260E+05+/- 1.240E+04 (9.85%)

CE-139	165.85	80.35*	3.723E+00	4.677E+03	1.544E+05	12.66	OK
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Final Mean for 1 Valid Peaks = 1.544E+05+/- 1.955E+04 (12.66%)

Nuclide Type: ACTIVATION

Nuclide	Energy	%Abn	%Eff	Uncorrected pCi/liter	Decay Corr pCi/liter	2-Sigma %Error	Status
CO-60	1173.22	100.00*	4.924E-01	1.501E+05	1.927E+05	9.55	OK
	1332.49	100.00	4.375E-01	1.544E+05	1.982E+05	9.35	OK

Final Mean for 2 Valid Peaks = 1.955E+05+/- 1.305E+04 (6.68%)

TH-230	48.44	16.90	4.408E+00	7.804E+04	7.804E+04	9.60	OK
	62.85	4.60	4.918E+00	-----	Line Not Found	-----	Absent
	67.67	0.37*	4.990E+00	8.664E+05	8.665E+05	15.84	<<WM N-Sigma

Final Mean for 1 Valid Peaks = 7.804E+04+/- 7.490E+03 (9.60%)

Nuclide Type: NATURAL

Nuclide	Energy	%Abn	%Eff	Uncorrected pCi/liter	Decay Corr pCi/liter	2-Sigma %Error	Status
RA-226	186.21	3.28*	3.407E+00	9.110E+03	9.118E+03	206.06	OK

Final Mean for 1 Valid Peaks = 9.118E+03+/- 1.879E+04 (206.06%)

AM-241	59.54	35.90*	4.844E+00	2.992E+05	3.001E+05	8.17	OK
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Final Mean for 1 Valid Peaks = 3.001E+05+/- 2.452E+04 (8.17%)

Flag: "*" = Keyline

---- Identified Nuclides ----

Nuclide	Activity (pCi/liter)	Act error	MDA (pCi/liter)	MDA error	Act/MDA
CO-57	1.020E+05	9.597E+03	1.985E+03	1.958E+02	51.378
CO-60	1.955E+05	1.305E+04	1.335E+03	1.143E+02	146.433
Y-88	4.220E+05	5.305E+04	3.726E+04	3.021E+03	11.328
CD-109	4.179E+06	5.344E+05	2.662E+04	3.223E+03	156.972
SN-113	2.270E+05	5.867E+04	5.710E+04	5.647E+03	3.975
SN-126	1.488E+05	1.676E+04	9.476E+02	9.936E+01	156.989
CS-137	1.260E+05	1.240E+04	9.780E+02	8.694E+01	128.788
CE-139	1.544E+05	1.955E+04	1.266E+04	1.045E+03	12.193
RA-226	9.118E+03	1.879E+04	1.034E+04	1.894E+04	0.881
TH-230	7.804E+04	7.490E+03	1.093E+05	8.672E+03	0.714
AM-241	3.001E+05	2.452E+04	1.120E+03	7.953E+01	267.899

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity K.L. (pCi/liter) Ided	Act error	MDA (pCi/liter)	MDA error	Act/MDA
NA-22	3.712E+02	6.146E+02	1.075E+03	9.086E+01	0.345
AL-26	-2.022E+01	2.011E+02	3.528E+02	2.879E+01	-0.057
K-40	5.223E+02	2.212E+03	3.924E+03	3.414E+02	0.133
TI-44	3.466E+03 +	5.495E+02	4.715E+02	3.750E+01	7.352
MN-54	2.314E+02	2.862E+03	4.897E+03	4.606E+02	0.047
ZN-65	1.103E+04	1.097E+04	1.878E+04	1.672E+03	0.587
SE-75	2.296E+02	2.499E+04	4.065E+04	3.397E+03	0.006
KR-85	3.559E+04	1.101E+05	1.776E+05	1.777E+04	0.200
NB-93M	1.556E+06	6.057E+05	4.350E+04	1.683E+04	35.781
NB-94	2.591E+02	6.817E+02	1.167E+03	1.096E+02	0.222
RU-106	4.014E+03	1.752E+04	2.816E+04	3.913E+03	0.143
AG-108M	-1.420E+02	5.475E+02	9.364E+02	8.589E+01	-0.152
AG-110M	1.965E+05	2.018E+04	1.185E+04	1.058E+03	16.590
TE123M	-1.780E+03	1.376E+04	2.009E+04	1.720E+03	-0.089
SB-125	-7.679E+02	2.171E+03	3.484E+03	3.469E+02	-0.220
I-129	1.825E+04	2.627E+03	1.459E+03	1.831E+02	12.509
BA-133	6.688E+01	6.876E+02	9.923E+02	1.342E+02	0.067
CS-134	6.328E+02	9.279E+02	1.427E+03	1.369E+02	0.443
CS-135	-3.898E+02	1.691E+03	2.742E+03	2.261E+02	-0.142
LA-138	-2.101E+02	3.752E+02	6.333E+02	5.343E+01	-0.332
CE-144	4.911E+04	1.136E+04	1.567E+04	1.485E+03	3.134
PM-144	1.551E+02	2.139E+03	3.039E+03	4.153E+02	0.051
PM-145	-3.393E+03	3.216E+03	2.692E+03	1.759E+03	-1.260
PM-146	2.448E+02	1.391E+03	2.244E+03	2.216E+02	0.109
EU-152	-9.331E+02	1.738E+03	2.939E+03	3.161E+02	-0.317
GD-153	-5.667E+03	5.724E+03	9.298E+03	9.458E+02	-0.609
EU-154	7.371E+02	1.211E+03	2.118E+03	1.791E+02	0.348
EU-155	2.236E+05	2.483E+04	3.806E+03	3.931E+02	58.751
HO-166M	3.256E+02	8.895E+02	1.534E+03	1.400E+02	0.212
HF-172	7.102E+04	8.398E+03	6.584E+03	6.396E+02	10.788
LU-173	-2.464E+01	3.360E+03	5.462E+03	4.480E+02	-0.005
LU-176	3.212E+02	3.457E+02	5.043E+02	4.294E+01	0.637

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/liter)	K.L. Ided	Act error	MDA (pCi/liter)	MDA error	Act/MDA
TA-182	-8.025E+03		1.411E+05	2.393E+05	2.120E+04	-0.034
BI-207	-2.829E+02		4.543E+02	7.212E+02	7.092E+01	-0.392
TL-208	-4.674E+02		1.467E+03	2.341E+03	2.282E+02	-0.200
BI-210M	-1.591E+01		5.945E+02	9.669E+02	8.034E+01	-0.016
PB-210	3.588E+05		3.347E+04	1.679E+04	1.344E+03	21.373
PB-211	-8.543E+03		1.284E+04	2.052E+04	1.955E+03	-0.416
BI-212	3.642E+03		4.192E+03	7.249E+03	6.661E+02	0.502
PB-212	1.948E+02		5.804E+02	9.476E+02	8.018E+01	0.206
BI-214	-3.574E+02		9.915E+02	1.580E+03	1.505E+02	-0.226
PB-214	4.948E+02		9.654E+02	1.401E+03	1.269E+02	0.353
RN-219	-4.015E+03		5.939E+03	9.021E+03	8.568E+02	-0.445
RA-223	-1.904E+03		7.694E+03	1.244E+04	1.087E+03	-0.153
RA-224	2.943E+03		6.563E+03	1.072E+04	9.061E+02	0.275
TH-227	-4.297E+02		2.250E+03	3.658E+03	3.098E+02	-0.117
AC-228	-7.411E+02		2.836E+03	4.657E+03	4.357E+02	-0.159
PA-231	-6.524E+03		1.313E+04	2.015E+04	1.704E+03	-0.324
TH-231	1.478E+06	+	2.403E+05	2.576E+04	4.051E+03	57.403
PA-234	4.100E+02		1.197E+03	1.393E+03	1.330E+02	0.294
PA-234M	-3.411E+04		8.762E+04	1.375E+05	1.277E+04	-0.248
TH-234	5.882E+05		5.089E+04	1.733E+04	1.294E+03	33.940
U-235	6.456E+02		1.908E+03	2.801E+03	4.974E+02	0.231
NP-237	4.205E+05		4.669E+04	7.156E+03	7.392E+02	58.760
AM-243	1.151E+03		4.370E+02	6.340E+02	5.546E+01	1.815
CM-243	2.075E+02		2.052E+03	3.339E+03	2.715E+02	0.062

Total number of lines in spectrum 38
 Number of unidentified lines 19
 Number of lines tentatively identified by NID 19 50.00%

Nuclide Type : FISSION

Nuclide	Hlife	Decay	Wtd Mean	Wtd Mean	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
			Uncorrected pCi/liter	Decay Corr pCi/liter			
CO-57	270.90D	5.91	1.725E+04	1.020E+05	0.096E+05	9.41	
Y-88	106.60D	91.4	4.615E+03	4.220E+05	0.530E+05	12.57	
CD-109	464.00D	2.82	1.481E+06	4.179E+06	0.534E+06	12.79	
SN-113	115.10D	65.5	3.465E+03	2.270E+05	0.587E+05	25.85	
SN-126	1.00E+05Y	1.00	1.488E+05	1.488E+05	0.168E+05	11.27	
CS-137	30.17Y	1.04	1.206E+05	1.260E+05	0.124E+05	9.85	
CE-139	137.66D	33.0	4.677E+03	1.544E+05	0.195E+05	12.66	
Total Activity :			1.780E+06	5.359E+06			

Nuclide Type : ACTIVATION

Nuclide	Hlife	Decay	Wtd Mean	Wtd Mean	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
			Uncorrected pCi/liter	Decay Corr pCi/liter			
CO-60	5.27Y	1.28	1.522E+05	1.955E+05	0.131E+05	6.68	
TH-230	7.70E+04Y	1.00	7.804E+04	7.804E+04	0.749E+04	9.60	
Total Activity :			2.303E+05	2.735E+05			

Nuclide Type : NATURAL

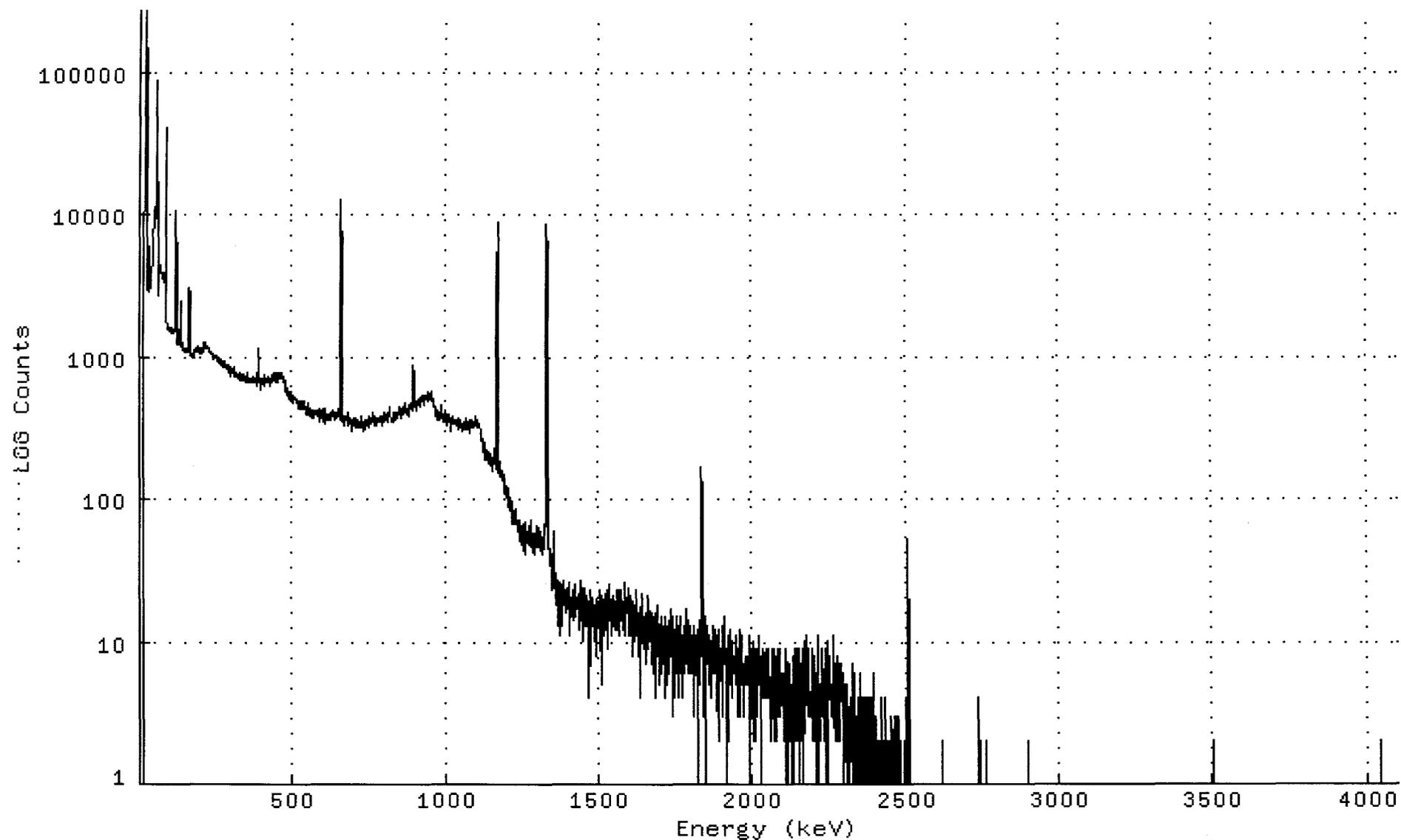
Nuclide	Hlife	Decay	Wtd Mean	Wtd Mean	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
			Uncorrected pCi/liter	Decay Corr pCi/liter			
RA-226	1602.00Y	1.00	9.110E+03	9.118E+03	18.79E+03	206.06	
AM-241	432.20Y	1.00	2.992E+05	3.001E+05	0.245E+05	8.17	
Total Activity :			3.083E+05	3.093E+05			

Grand Total Activity : 2.319E+06 5.942E+06

Flags: "K" = Keyline not found
 "E" = Manually edited

"M" = Manually accepted
 "A" = Nuclide specific abn. limit

Spectrum : DKA100:[GAMMA.SCUSR.ARCHIVE]SMP_111106701_GE4_GAW11_171360.CNF;1
Title :
Sample Title: GAW 10
Start Time: 26-NOV-2011 11:28 Sample Time: 1-JAN-2010 00:00: Energy Offset: 6.14527E-01
Real Time : 0 00:31:12.77 Sample ID : 1111067-01 Energy Slope : 9.99512E-01
Live Time : 0 00:30:00.00 Sample Type: WATER Energy Quad : 0.00000E+00



Channel Contents for DKA100: [GAMMA.SCUSR.ARCHIVE] SMP_111106701_GE4_GAW11_171360

Channel

1:	0	0	0	0	0	0	0	0
9:	0	0	0	0	1	101	5320	8659
17:	11714	17010	39015	117057	274062	240994	87883	84455
25:	64489	16678	4203	2959	2894	3369	5331	5813
33:	4193	2957	2823	3375	3375	3242	3012	3599
41:	3983	4550	4938	5022	5190	5605	6785	9132
49:	11104	11166	10470	10071	9686	9497	9408	9791
57:	13044	46233	85646	44024	6270	2702	2838	2852
65:	3438	3868	4283	4245	4321	4183	4014	3849
73:	3861	3753	3631	3579	3627	3543	3283	3544
81:	3608	3466	3629	3744	3941	10588	38202	40009
89:	10751	1997	1737	1689	1679	1712	1566	1639
97:	1574	1594	1574	1520	1534	1555	1513	1464
105:	1464	1596	1495	1532	1564	1463	1518	1505
113:	1541	1477	1442	1506	1540	1487	1475	3015
121:	9469	10495	3798	1386	1269	1210	1223	1247
129:	1236	1234	1205	1241	1214	1335	1817	2446
137:	1802	1269	1223	1171	1236	1200	1250	1166
145:	1105	1133	1181	1129	1124	1089	1110	1112
153:	1080	1101	1122	1116	1077	1074	1111	1100
161:	1071	1126	1147	1527	2984	2739	1433	1036
169:	1053	993	1033	1035	1023	1048	983	1035
177:	983	1015	1093	1060	1024	975	1038	1097
185:	1141	1153	1135	1073	1077	1086	1104	1180
193:	1078	1084	1102	1124	1075	1149	1115	1037
201:	1117	1082	1099	1053	1038	1072	1095	1140
209:	1085	1129	1073	1128	1207	1238	1223	1161
217:	1233	1214	1162	1153	1174	1185	1145	1148
225:	1171	1165	1157	1055	1147	1088	1130	1093
233:	1057	1133	1047	1055	1067	1085	1051	1069
241:	1044	1008	1020	979	959	991	986	992
249:	1015	966	981	1019	969	988	966	911
257:	998	949	981	929	934	926	939	881
265:	932	907	934	883	892	889	869	918
273:	904	899	837	875	872	832	884	908
281:	846	834	829	846	867	823	862	825
289:	808	851	773	792	864	814	875	806
297:	795	836	811	716	791	759	788	816
305:	792	771	774	781	823	832	814	789
313:	716	774	719	776	718	725	756	716
321:	734	708	749	725	720	745	743	729
329:	768	728	727	695	675	735	715	678
337:	720	713	714	687	704	711	735	689
345:	695	716	667	686	717	695	715	701
353:	708	713	657	672	764	678	708	690
361:	661	659	655	696	649	702	659	694
369:	678	698	667	652	660	674	724	708
377:	668	668	666	659	675	700	652	630
385:	623	677	650	644	716	811	1131	1150
393:	818	691	661	696	668	618	694	706
401:	582	658	673	668	668	684	699	660
409:	686	723	703	647	748	620	693	649
417:	702	690	705	685	680	671	663	693
425:	712	648	666	698	654	628	677	669

433:	686	710	670	728	692	659	732	726
441:	679	697	678	693	763	665	677	702
449:	760	709	765	709	766	715	711	667
457:	719	757	707	693	742	709	762	714
465:	738	722	773	739	699	729	729	708
473:	725	728	694	666	668	679	608	602
481:	623	567	583	591	601	535	566	566
489:	501	550	564	496	543	523	515	555
497:	517	518	525	569	520	473	502	539
505:	507	527	482	502	501	512	504	507
513:	519	473	505	501	471	475	504	485
521:	468	453	452	428	434	458	430	437
529:	454	450	481	476	431	438	481	443
537:	444	430	487	450	460	451	450	430
545:	449	413	396	430	393	397	438	464
553:	412	395	408	416	425	402	396	435
561:	382	387	401	419	369	381	389	392
569:	370	399	392	368	403	413	378	415
577:	395	400	397	399	409	416	387	385
585:	393	395	414	414	390	406	384	349
593:	385	429	384	421	421	384	372	392
601:	343	389	430	379	418	360	423	371
609:	392	393	341	397	362	366	384	393
617:	359	389	391	361	361	383	382	393
625:	390	383	369	362	403	387	386	378
633:	408	395	401	402	421	390	374	392
641:	393	356	394	376	375	402	403	372
649:	365	384	424	388	395	380	390	386
657:	361	437	655	3539	11204	12448	4422	747
665:	390	398	373	362	344	381	324	352
673:	362	351	342	379	370	369	354	372
681:	377	364	406	365	329	343	338	360
689:	332	333	356	352	370	296	315	344
697:	335	353	344	344	325	329	368	337
705:	327	331	343	365	338	319	349	323
713:	360	337	346	313	337	362	318	340
721:	324	333	317	345	353	349	316	350
729:	378	324	356	338	294	323	323	316
737:	349	304	343	326	327	342	356	337
745:	333	361	329	355	328	355	345	379
753:	376	321	367	345	337	338	342	349
761:	357	373	344	399	345	343	366	357
769:	351	328	367	352	376	331	329	339
777:	366	369	339	342	370	364	345	363
785:	352	348	358	346	352	357	373	382
793:	361	364	328	324	359	340	364	397
801:	349	365	349	401	373	355	386	358
809:	380	397	373	363	373	399	369	373
817:	359	344	406	384	383	437	390	410
825:	349	349	370	362	353	353	387	360
833:	399	347	392	393	363	395	389	391
841:	401	394	397	385	401	372	385	401
849:	391	411	440	441	411	387	423	364
857:	398	423	383	407	385	402	393	431
865:	411	441	433	416	416	432	404	418
873:	423	465	392	413	429	426	433	418
881:	382	423	447	418	454	406	432	462
889:	467	424	434	440	456	465	412	479
897:	655	865	732	549	476	463	437	448
905:	531	417	454	454	469	489	456	462

913:	478	484	463	484	486	513	452	438
921:	477	497	496	489	493	514	531	514
929:	488	463	473	469	515	524	450	538
937:	519	517	532	500	499	504	551	564
945:	507	522	484	551	498	517	536	508
953:	534	550	532	523	496	523	555	557
961:	479	495	459	492	446	456	443	427
969:	444	426	383	400	400	360	378	387
977:	415	400	403	405	368	373	382	363
985:	381	384	371	378	413	394	450	379
993:	397	374	360	383	370	344	384	363
1001:	366	345	412	350	326	355	371	386
1009:	391	372	349	369	385	392	378	379
1017:	355	367	302	337	348	348	364	363
1025:	347	338	383	345	340	358	343	332
1033:	343	343	363	322	362	343	343	349
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1057:	300	340	338	320	334	308	324	328
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1073:	331	313	310	344	320	338	326	345
1081:	326	323	337	293	356	341	339	337
1089:	313	358	353	315	319	334	336	338
1097:	346	327	338	353	365	340	380	321
1105:	345	329	361	333	347	332	328	333
1113:	326	335	338	321	306	299	304	284
1121:	291	267	237	265	263	237	245	215
1129:	228	226	248	224	235	211	190	186
1137:	218	214	194	216	223	199	175	178
1145:	199	212	215	205	193	204	178	174
1153:	203	158	181	196	182	182	165	193
1161:	175	201	186	183	225	214	178	161
1169:	195	228	626	3405	8829	8737	3441	607
1177:	214	152	150	169	184	161	146	143
1185:	134	158	135	135	159	141	135	142
1193:	136	136	148	130	114	104	108	123
1201:	119	114	117	107	87	102	103	104
1209:	121	91	82	97	102	95	95	74
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1273:	64	58	48	62	54	48	46	51
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1289:	43	56	41	56	57	51	58	58
1297:	46	53	52	48	65	46	53	46
1305:	53	54	51	53	63	44	52	49
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1329:	82	283	1786	5954	8530	4961	1158	163
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1353:	51	60	44	36	27	26	21	23
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1377:	19	25	15	24	18	14	13	24
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1401:	17	21	17	12	26	11	16	16
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1505:	19	14	14	5	15	11	12	13
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1553:	12	14	16	12	19	16	12	20
1561:	23	18	14	23	15	13	21	11
1569:	19	13	18	17	14	15	23	16
1577:	12	14	19	15	16	18	15	16
1585:	26	11	16	17	16	16	17	18
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1609:	10	8	19	11	10	18	13	10
1617:	11	18	12	17	11	17	23	11
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1633:	15	13	13	14	4	14	22	12
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1673:	12	11	8	6	7	15	14	6
1681:	12	10	16	15	4	7	9	8
1689:	10	8	18	11	13	11	12	12
1697:	9	12	5	12	15	11	6	12
1705:	7	12	8	13	10	7	10	10
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1721:	5	6	12	13	10	6	7	14
1729:	8	12	11	17	13	14	8	8
1737:	10	13	10	11	8	15	3	10
1745:	10	9	8	12	11	4	9	6
1753:	7	11	9	15	4	9	5	6
1761:	6	13	6	14	9	11	8	15
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1777:	13	11	8	7	8	10	10	17
1785:	14	7	8	13	10	9	9	6
1793:	14	12	6	8	11	9	6	6
1801:	8	8	10	7	11	6	13	6
1809:	9	8	10	3	11	7	7	11
1817:	10	8	6	7	1	12	8	8
1825:	5	12	5	12	10	9	14	9
1833:	8	18	65	150	169	103	34	17
1841:	8	3	9	15	8	6	11	1
1849:	7	13	7	7	7	7	10	5
1857:	9	11	6	6	5	7	4	7
1865:	6	9	10	5	9	13	10	9

1873:	9	6	12	6	11	9	7	12
1881:	8	8	7	4	11	5	2	7
1889:	6	5	3	12	3	9	6	9
1897:	8	8	7	6	3	13	7	7
1905:	4	15	8	7	10	7	10	7
1913:	6	7	9	0	6	8	6	3
1921:	2	11	8	4	9	10	10	11
1929:	5	12	4	10	6	6	6	8
1937:	7	8	6	8	8	7	8	11
1945:	8	7	5	8	6	7	7	4
1953:	7	9	3	11	12	11	3	7
1961:	3	10	10	5	11	8	8	4
1969:	5	5	6	7	3	8	5	6
1977:	8	7	5	8	6	7	5	6
1985:	6	7	9	1	3	11	3	5
1993:	9	8	5	8	5	4	2	5
2001:	7	4	9	10	3	2	7	7
2009:	6	4	9	6	7	9	6	3
2017:	4	11	6	8	5	5	7	4
2025:	7	8	1	8	2	8	7	5
2033:	4	8	5	9	8	4	5	4
2041:	5	6	9	8	4	6	6	6
2049:	9	7	5	6	4	8	4	3
2057:	4	2	2	2	9	4	7	9
2065:	4	4	4	2	4	9	7	8
2073:	5	2	7	8	5	3	7	5
2081:	9	4	5	3	5	3	5	9
2089:	3	6	6	4	4	6	6	4
2097:	5	6	2	6	5	6	2	6
2105:	4	5	0	4	7	9	6	1
2113:	7	2	5	5	5	6	4	7
2121:	4	2	5	4	1	4	1	5
2129:	2	4	5	1	7	8	3	2
2137:	9	9	3	9	3	3	5	9
2145:	9	7	2	4	6	9	7	4
2153:	1	5	4	2	7	3	5	3
2161:	4	2	9	9	6	0	5	4
2169:	10	5	3	3	4	5	11	5
2177:	6	8	9	3	4	3	6	4
2185:	5	4	4	4	3	3	3	5
2193:	4	9	2	6	3	2	8	8
2201:	5	8	6	1	5	3	4	3
2209:	3	6	1	6	11	6	3	3
2217:	4	4	4	5	2	2	9	3
2225:	6	7	5	7	6	2	5	5
2233:	4	3	9	1	3	4	7	8
2241:	5	5	1	10	6	2	3	5
2249:	8	5	5	8	5	4	3	5
2257:	4	5	5	4	5	6	11	6
2265:	3	2	4	7	2	2	3	3
2273:	3	3	2	4	8	5	5	2
2281:	4	5	7	2	7	4	6	5
2289:	5	5	4	6	4	5	1	4
2297:	4	5	3	3	2	2	2	1
2305:	5	3	3	2	4	3	2	3
2313:	2	3	1	3	3	2	4	2
2321:	2	0	3	7	0	2	2	1
2329:	3	1	5	3	6	3	3	3
2337:	3	3	0	2	1	4	0	2
2345:	0	0	1	1	6	2	5	1

2353:	1	4	2	3	3	0	1	2
2361:	3	3	4	4	1	1	4	2
2369:	0	3	2	2	2	1	3	2
2377:	4	2	0	2	1	1	1	4
2385:	1	2	4	1	2	3	2	0
2393:	1	0	6	0	0	2	3	0
2401:	1	1	0	2	2	2	1	1
2409:	2	1	1	0	1	2	1	4
2417:	2	2	2	2	0	0	0	2
2425:	1	0	1	2	4	1	1	1
2433:	0	1	2	0	0	2	1	1
2441:	2	0	1	1	2	0	3	1
2449:	1	2	0	0	0	0	1	1
2457:	0	2	3	0	1	0	1	0
2465:	3	0	1	1	0	0	0	0
2473:	0	0	3	1	1	2	1	0
2481:	1	1	1	1	0	0	0	1
2489:	0	1	0	0	1	2	2	1
2497:	4	0	1	0	0	1	1	5
2505:	15	43	52	26	15	3	2	1
2513:	1	0	1	0	0	1	0	0
2521:	1	1	0	0	1	1	0	0
2529:	1	0	0	1	0	0	1	1
2537:	0	0	0	1	0	0	1	0
2545:	0	0	0	0	1	0	0	0
2553:	0	0	0	1	0	0	0	0
2561:	0	1	0	0	0	0	0	0
2569:	1	0	1	0	0	0	0	0
2577:	0	0	0	0	0	0	0	0
2585:	0	0	0	0	1	0	0	0
2593:	0	0	1	0	0	1	0	0
2601:	0	0	0	1	0	0	1	0
2609:	0	0	0	0	1	0	2	1
2617:	0	0	0	0	0	0	0	0
2625:	0	0	0	0	0	0	0	0
2633:	0	0	0	0	0	0	0	1
2641:	0	0	0	0	0	1	0	0
2649:	0	0	0	0	0	0	0	1
2657:	0	0	0	0	0	0	0	1
2665:	0	0	0	0	1	0	1	0
2673:	0	0	1	0	0	0	0	0
2681:	0	1	0	0	0	0	0	0
2689:	0	0	0	0	0	0	0	0
2697:	0	0	0	0	0	0	0	1
2705:	0	0	0	0	0	1	1	1
2713:	0	0	0	0	0	0	0	0
2721:	1	0	1	0	0	1	0	0
2729:	0	1	0	0	1	1	2	4
2737:	1	0	0	1	2	0	0	0
2745:	0	0	0	0	1	1	0	0
2753:	0	0	0	0	0	0	0	0
2761:	0	2	1	1	0	0	0	0
2769:	0	0	0	0	0	0	0	0
2777:	0	0	0	0	1	0	0	0
2785:	0	0	0	0	0	0	0	0
2793:	0	1	0	0	1	0	1	0
2801:	0	0	1	0	0	0	0	0
2809:	1	0	0	1	0	0	0	0
2817:	0	0	0	0	0	0	1	0
2825:	0	0	0	0	0	0	0	0

2833:	0	0	1	0	0	0	0	1
2841:	0	1	0	0	0	0	0	0
2849:	0	0	0	0	0	0	0	0
2857:	0	0	0	0	0	0	0	0
2865:	1	0	0	0	0	1	1	0
2873:	0	0	0	0	0	0	0	0
2881:	0	0	0	1	0	0	0	0
2889:	0	0	0	1	0	0	1	2
2897:	0	0	0	0	0	0	0	0
2905:	0	0	0	0	0	0	0	0
2913:	0	0	0	0	0	0	0	0
2921:	0	0	0	0	0	0	0	0
2929:	0	1	0	0	0	1	0	0
2937:	0	0	0	0	0	0	0	0
2945:	0	0	0	0	0	0	0	0
2953:	0	0	0	0	0	0	0	0
2961:	0	0	0	0	0	0	0	0
2969:	0	1	1	0	0	0	0	0
2977:	0	0	0	0	0	0	0	1
2985:	0	0	0	0	0	0	0	0
2993:	0	0	0	0	0	0	0	0
3001:	0	0	1	0	0	0	0	0
3009:	0	0	0	0	0	0	0	0
3017:	0	0	0	0	0	0	0	0
3025:	0	0	0	0	0	0	0	0
3033:	0	0	0	0	0	0	1	0
3041:	0	0	0	0	0	0	0	0
3049:	0	0	0	0	0	0	0	0
3057:	0	0	0	0	0	0	0	0
3065:	0	0	0	0	0	0	0	0
3073:	0	0	0	0	1	0	0	0
3081:	1	0	0	0	0	0	0	0
3089:	0	0	0	0	0	0	0	0
3097:	1	0	0	0	0	1	0	0
3105:	0	1	0	0	0	0	0	0
3113:	0	0	0	0	0	0	0	0
3121:	0	0	1	0	0	0	0	1
3129:	0	0	0	0	0	0	0	0
3137:	0	0	0	0	0	0	0	1
3145:	0	0	0	0	0	0	0	0
3153:	0	1	0	0	0	0	0	0
3161:	0	0	0	0	0	0	0	0
3169:	0	0	0	0	0	0	0	1
3177:	0	0	1	0	0	0	0	0
3185:	0	0	0	0	0	0	0	0
3193:	0	0	0	0	0	0	0	0
3201:	0	0	0	0	0	0	0	0
3209:	0	0	0	0	0	0	0	0
3217:	0	0	0	0	0	0	0	0
3225:	0	0	0	0	0	0	0	0
3233:	0	1	0	1	0	0	0	0
3241:	0	0	0	0	0	0	0	0
3249:	0	0	0	1	0	0	0	0
3257:	0	0	0	0	0	0	0	0
3265:	0	0	0	0	0	0	0	0
3273:	0	0	0	1	0	0	0	0
3281:	0	0	0	0	0	0	0	0
3289:	0	0	0	0	0	0	0	0
3297:	0	0	0	0	0	0	0	0
3305:	0	0	0	0	0	0	0	0

3313:	0	1	0	0	0	0	0	0	0
3321:	1	0	0	0	0	0	0	0	0
3329:	0	0	0	0	0	0	0	0	0
3337:	0	0	0	0	0	0	0	0	0
3345:	0	1	0	0	0	0	0	0	0
3353:	0	0	0	0	0	0	0	0	0
3361:	0	0	0	0	0	1	0	0	0
3369:	0	0	0	0	0	1	0	0	0
3377:	0	0	0	0	0	0	0	0	0
3385:	0	0	0	1	0	0	0	0	0
3393:	0	0	0	0	0	0	0	0	0
3401:	0	0	0	0	0	0	0	0	0
3409:	0	0	0	1	0	0	0	0	0
3417:	0	0	0	0	0	0	0	0	0
3425:	0	0	0	0	0	0	0	0	0
3433:	0	0	0	0	0	1	0	0	0
3441:	0	0	1	0	0	0	0	0	0
3449:	0	0	0	0	0	0	0	0	0
3457:	0	0	0	0	0	0	0	0	0
3465:	0	0	0	0	0	0	0	0	0
3473:	0	0	0	0	0	0	0	0	1
3481:	0	0	0	0	0	0	0	0	0
3489:	0	0	0	0	0	0	0	0	0
3497:	0	2	0	0	0	0	0	0	1
3505:	0	0	0	0	0	0	0	0	0
3513:	0	0	0	0	0	0	0	0	0
3521:	0	0	0	0	0	0	0	0	0
3529:	0	0	0	0	1	0	0	0	0
3537:	0	0	0	0	0	0	0	0	0
3545:	0	0	0	0	0	0	0	0	0
3553:	0	0	0	0	0	0	0	0	0
3561:	0	0	0	0	0	0	0	0	0
3569:	0	0	0	0	0	0	0	0	0
3577:	0	0	0	0	0	1	0	0	0
3585:	0	0	0	0	0	0	0	0	0
3593:	0	0	0	0	0	0	0	0	0
3601:	1	0	0	0	0	0	0	0	0
3609:	0	0	0	0	1	0	0	0	1
3617:	0	0	0	0	0	0	0	0	0
3625:	0	0	0	0	0	0	0	0	0
3633:	0	0	0	0	0	0	0	0	0
3641:	0	0	1	0	0	0	0	0	0
3649:	0	0	0	1	0	0	0	0	0
3657:	0	0	0	0	0	0	0	0	0
3665:	0	0	0	0	0	0	0	0	0
3673:	0	0	0	0	0	0	0	0	0
3681:	0	0	0	0	0	0	0	0	0
3689:	0	0	0	0	0	0	0	0	0
3697:	0	0	0	0	0	0	0	0	0
3705:	0	0	0	0	0	1	0	0	0
3713:	0	0	0	0	0	0	0	0	0
3721:	0	0	0	0	1	0	0	0	0
3729:	0	0	0	0	0	0	0	0	1
3737:	0	0	0	0	0	0	0	0	0
3745:	0	0	0	0	0	0	0	0	0
3753:	0	0	0	0	0	0	0	0	0
3761:	1	0	0	0	0	0	0	0	0
3769:	1	1	0	0	0	0	0	0	0
3777:	0	0	0	0	0	0	0	0	0
3785:	1	0	0	0	0	1	0	0	1

3793:	0	0	0	0	0	1	0	0
3801:	0	0	0	0	0	0	0	0
3809:	0	1	0	0	0	1	0	0
3817:	0	0	0	1	0	0	0	0
3825:	1	0	0	0	0	0	0	0
3833:	0	0	0	0	0	0	0	0
3841:	0	0	0	0	0	0	0	0
3849:	0	0	0	0	0	0	0	0
3857:	0	0	0	0	1	0	0	0
3865:	0	0	0	0	0	0	0	0
3873:	0	0	0	0	0	0	0	0
3881:	0	0	0	0	0	0	0	0
3889:	0	0	0	0	0	0	0	0
3897:	0	0	0	0	0	0	0	0
3905:	0	0	0	0	0	0	0	0
3913:	0	0	0	0	0	0	0	0
3921:	0	0	0	1	0	0	0	0
3929:	0	0	0	0	0	0	0	0
3937:	0	0	0	0	0	0	0	0
3945:	0	0	0	0	0	0	0	0
3953:	0	0	0	0	0	0	0	1
3961:	0	0	0	0	0	1	0	0
3969:	0	0	0	0	0	0	0	0
3977:	1	0	0	0	0	0	0	0
3985:	0	0	0	0	1	0	1	0
3993:	0	0	0	0	1	0	0	0
4001:	0	0	0	0	0	0	0	0
4009:	0	0	0	0	0	0	0	0
4017:	0	0	0	0	0	0	0	0
4025:	0	0	0	0	0	0	0	0
4033:	0	0	0	1	0	0	0	2
4041:	0	0	0	0	0	0	0	0
4049:	0	1	0	0	0	0	0	0
4057:	0	0	0	0	0	0	0	0
4065:	0	0	0	0	0	0	0	0
4073:	0	1	0	0	0	0	0	0
4081:	0	0	0	0	0	0	0	0
4089:	0	0	0	0	0	0	0	0

ICB
11/28/11

Sample ID : 1111067-02

Acquisition date : 25-NOV-2011 14:19:16

VAX/VMS Peak Search Report Generated 25-NOV-2011 16:19:32.53

Configuration : DKA100: [GAMMA.SCUSR.ARCHIVE] SMP_111106702_GE4_GAW11_171333.CN
 Analyses by : PEAK V16.9 ENBACK V1.6 PEAKEFF V2.2
 Client ID : BLANK
 Deposition Date :
 Sample Date : 25-NOV-2011 00:00:00 Acquisition date : 25-NOV-2011 14:19:16
 Sample ID : 1111067-02 Sample Quantity : 2.00000E+00 liter
 Sample type : WATER Sample Geometry : 0
 Detector name : GE4 Detector Geometry: GAW-11
 Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.43 0.0%
 Start channel : 5 End channel : 4096
 Sensitivity : 2.40000 Gaussian : 15.00000
 Critical level : Yes

Post-NID Peak Search Report

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides
0	145.34	28	80	2.97	144.80	143	5102.5	0.00E+00		CE-141
0	300.08	36	71	1.38	299.61	296	8	90.3		
0	371.83	36	86	5.75	371.40	368	13108.1			
0	460.04	24	38	3.75	459.65	455	9103.5			
0	662.01	25	16	3.13	661.72	658	8	68.4		CS-137
0	876.56	14	17	1.27	876.37	872	9122.9			
0	1133.08	21	11	4.51	1133.02	1129	12	71.9		
0	1269.99	14	5	1.10	1270.00	1266	10	80.2		
0	1278.89	5	3	1.94	1278.90	1276	6141.4			
0	1294.12	11	4	4.41	1294.14	1290	8	87.2		
0	1396.05	9	4	4.68	1396.12	1393	7100.2			
0	1495.83	9	6	2.96	1495.94	1489	11127.0			
0	1507.77	6	2	2.15	1507.89	1505	7112.0			
0	1742.16	5	0	1.24	1742.40	1739	6	89.4		
0	1764.75	8	0	1.16	1765.00	1761	8	70.7		
0	2092.49	10	0	3.64	2092.90	2088	9	63.2		

AG
11/28/11

Total number of lines in spectrum 16
 Number of unidentified lines 11
 Number of lines tentatively identified by NID 5 31.25%

Nuclide Type : FISSION

Nuclide	Hlife	Decay	Wtd Mean	Wtd Mean	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
			Uncorrected pCi/liter	Decay Corr pCi/liter			
CS-137	30.17Y	1.00	6.096E+00	6.096E+00	4.209E+00	69.04	
CE-141	32.50D	1.01	2.693E+00	2.730E+00	2.846E+00	104.27	
Total Activity :			8.789E+00	8.826E+00			

Grand Total Activity : 8.789E+00 8.826E+00

Flags: "K" = Keyline not found
 "E" = Manually edited

"M" = Manually accepted
 "A" = Nuclide specific abn. limit

Nuclide Type: FISSION

Nuclide	Energy	%Abn	%Eff	Uncorrected pCi/liter	Decay Corr pCi/liter	2-Sigma %Error	Status
CS-137	661.65	85.12*	9.043E-01	6.096E+00	6.096E+00	69.04	OK

Final Mean for 1 Valid Peaks = 6.096E+00 +/- 4.209E+00 (69.04%)

CE-141	145.44	48.40*	4.069E+00	2.693E+00	2.730E+00	104.27	OK
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Final Mean for 1 Valid Peaks = 2.730E+00 +/- 2.846E+00 (104.27%)

Flag: "*" = Keyline

---- Identified Nuclides ----

Nuclide	Activity (pCi/liter)	Act error	MDA (pCi/liter)	MDA error	Act/MDA
CS-137	6.096E+00	4.209E+00	6.519E+00	5.795E-01	0.935
CE-141	2.730E+00	2.846E+00	5.516E+00	1.040E+00	0.495

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/liter)	K.L. Ided	Act error	MDA (pCi/liter)	MDA error	Act/MDA
BE-7	1.201E+00		2.724E+01	4.642E+01	4.624E+00	0.026
NA-22	2.793E+00		4.102E+00	7.341E+00	6.205E-01	0.380
NA-24	-6.845E-01		7.498E+00	1.465E+01	1.227E+00	-0.047
AL-26	3.635E+00		4.721E+00	1.054E+01	8.598E-01	0.345
K-40	5.269E+00		3.896E+01	8.024E+01	6.980E+00	0.066
AR-41	1.514E+03	+	1.327E+03	2.818E+03	2.372E+02	0.537
TI-44	-9.351E-01		1.721E+00	2.860E+00	2.275E-01	-0.327
SC-46	1.423E+00		3.845E+00	7.583E+00	7.100E-01	0.188
V-48	6.617E-02		3.366E+00	6.576E+00	6.127E-01	0.010
CR-51	-8.668E+00		2.452E+01	4.079E+01	3.730E+00	-0.213
MN-54	-1.146E+00		3.600E+00	6.546E+00	6.154E-01	-0.175
CO-56	1.372E+00		3.709E+00	7.306E+00	6.869E-01	0.188
CO-57	2.095E-02		1.738E+00	2.919E+00	2.871E-01	0.007
CO-58	-1.474E+00		3.660E+00	6.571E+00	6.181E-01	-0.224
FE-59	9.408E-01		6.328E+00	1.264E+01	1.218E+00	0.074
CO-60	-1.985E+00		4.691E+00	8.361E+00	7.157E-01	-0.237
ZN-65	-1.964E+00		7.260E+00	1.349E+01	1.201E+00	-0.146
GA-67	3.568E+00		6.780E+00	9.832E+00	1.109E+01	0.363
SE-75	-3.149E+00		3.380E+00	5.350E+00	4.464E-01	-0.589
RB-82	-4.600E+00		2.683E+01	4.969E+01	4.638E+00	-0.093
RB-83	-1.523E+00		6.978E+00	1.176E+01	1.932E+00	-0.130
KR-85	2.071E+03		9.717E+02	1.864E+03	1.865E+02	1.111
SR-85	9.117E+00		4.277E+00	8.203E+00	8.208E-01	1.111
Y-88	4.816E-01		3.659E+00	7.787E+00	6.309E-01	0.062
NB-93M	4.183E+02		1.874E+02	1.897E+02	7.341E+01	2.204
NB-94	-2.469E+00		4.526E+00	6.803E+00	6.386E-01	-0.363
NB-95	-2.102E-02		3.260E+00	6.190E+00	5.762E-01	-0.003
NB-95M	7.286E+00		8.774E+00	1.583E+01	1.341E+00	0.460
ZR-95	2.213E+00		5.199E+00	1.053E+01	1.064E+00	0.210
MO-99	9.599E-01		2.900E+01	5.522E+01	5.099E+00	0.017
RU-103	-2.142E+00		3.589E+00	5.775E+00	8.686E-01	-0.371
RU-106	-1.556E+01		3.467E+01	5.681E+01	7.880E+00	-0.274
AG-108M	3.742E-01		3.694E+00	6.863E+00	6.295E-01	0.055
CD-109	-1.039E+02		4.496E+01	6.451E+01	7.804E+00	-1.610
AG-110M	-1.011E+00		3.880E+00	5.759E+00	5.143E-01	-0.176
SN-113	-1.514E+00		3.954E+00	6.563E+00	6.331E-01	-0.231
TE123M	-4.127E-01		1.840E+00	3.107E+00	2.650E-01	-0.133
SB-124	-4.949E+00		4.371E+00	6.552E+00	6.281E-01	-0.755
I-125	-1.865E+01		3.246E+01	5.422E+01	5.485E+00	-0.344
SB-125	3.577E+00		8.644E+00	1.560E+01	1.538E+00	0.229
SB-126	-1.299E+00		6.314E+00	1.163E+01	1.066E+00	-0.112

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/liter)	K.L. Ided	Act error	MDA (pCi/liter)	MDA error	Act/MDA
SN-126	-9.249E+00		4.488E+00	6.679E+00	7.003E-01	-1.385
SB-127	-3.512E+00		1.033E+01	1.727E+01	1.555E+00	-0.203
I-129	-5.944E-01		5.057E+00	8.642E+00	1.084E+00	-0.069
I-131	-1.584E+00		3.177E+00	4.568E+00	4.194E-01	-0.347
TE-132	-1.614E+00		2.604E+00	4.252E+00	3.609E-01	-0.380
BA-133	-2.641E+00		4.360E+00	7.060E+00	9.546E-01	-0.374
I-133	6.520E-01		5.806E+00	1.020E+01	1.019E+00	0.064
CS-134	-4.090E+00		4.353E+00	6.693E+00	6.417E-01	-0.611
CS-135	-1.026E+00		1.265E+01	2.157E+01	1.779E+00	-0.048
I-135	4.143E+01		5.880E+01	1.253E+02	1.063E+01	0.331
CS-136	-1.325E+00		5.159E+00	9.505E+00	8.920E-01	-0.139
LA-138	1.967E+00		4.841E+00	1.078E+01	9.093E-01	0.182
CE-139	-1.425E-01		2.005E+00	3.417E+00	2.811E-01	-0.042
BA-140	-3.479E+00		1.237E+01	2.071E+01	6.942E+00	-0.168
LA-140	5.418E-01		4.365E+00	8.916E+00	7.527E-01	0.061
CE-143	-1.662E+00		8.093E+00	1.209E+01	1.006E+00	-0.137
CE-144	-4.821E+00		1.450E+01	2.427E+01	2.300E+00	-0.199
PM-144	5.090E+00		3.698E+00	7.425E+00	6.726E-01	0.685
PM-145	-4.089E+00		9.647E+00	1.562E+01	1.019E+01	-0.262
PM-146	-3.646E+00		7.959E+00	1.144E+01	1.129E+00	-0.319
ND-147	-4.205E+00		2.390E+01	4.066E+01	4.060E+00	-0.103
PM-149	8.197E+01		8.134E+01	1.502E+02	1.233E+01	0.546
EU-152	1.018E+01		2.826E+01	5.849E+01	6.289E+00	0.174
GD-153	2.857E+00		6.020E+00	1.059E+01	1.077E+00	0.270
EU-154	7.859E+00		1.154E+01	2.066E+01	1.746E+00	0.380
EU-155	-8.992E+00		5.437E+00	8.144E+00	8.412E-01	-1.104
EU-156	-1.781E+01		3.680E+01	6.493E+01	1.503E+01	-0.274
HO-166M	1.141E+00		5.621E+00	1.091E+01	9.961E-01	0.105
HF-172	-7.417E+00		1.273E+01	2.100E+01	2.041E+00	-0.353
LU-172	1.168E+00		7.252E+00	1.411E+01	1.269E+00	0.083
LU-173	5.543E+00		9.569E+00	1.714E+01	1.405E+00	0.323
HF-175	1.530E+00		2.828E+00	5.080E+00	4.556E-01	0.301
LU-176	-4.637E-01		2.564E+00	3.849E+00	3.277E-01	-0.120
TA-182	7.266E+00		8.875E+00	1.989E+01	1.762E+00	0.365
IR-192	5.695E-01		6.028E+00	9.477E+00	9.411E-01	0.060
HG-203	-1.604E+00		2.673E+00	4.363E+00	3.651E-01	-0.368
BI-207	-1.276E+00		2.870E+00	4.738E+00	4.658E-01	-0.269
TL-208	-8.446E-01		1.090E+01	1.844E+01	1.797E+00	-0.046
BI-210M	1.795E+00		4.300E+00	7.626E+00	6.336E-01	0.235
PB-210	-1.820E+01		4.748E+01	8.059E+01	6.451E+00	-0.226
PB-211	8.565E+01		7.873E+01	1.514E+02	1.442E+01	0.566
BI-212	4.828E+00		2.684E+01	5.185E+01	4.764E+00	0.093
PB-212	-1.339E+00		4.805E+00	7.745E+00	6.554E-01	-0.173
BI-214	2.412E+00		9.227E+00	1.648E+01	1.569E+00	0.146
PB-214	8.450E-01		7.524E+00	1.249E+01	1.132E+00	0.068
RN-219	1.185E+01		3.543E+01	6.372E+01	6.052E+00	0.186
RA-223	-3.219E+01		6.118E+01	1.002E+02	8.758E+00	-0.321
RA-224	6.129E+01		4.987E+01	9.199E+01	7.775E+00	0.666

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/liter)	K.L. Ided	Act error	MDA (pCi/liter)	MDA error	Act/MDA
RA-225	-3.898E+00		6.143E+00	1.022E+01	9.191E-01	-0.381
RA-226	-2.690E+01		7.739E+01	9.883E+01	1.810E+02	-0.272
TH-227	1.110E+01		1.703E+01	3.039E+01	2.574E+00	0.365
AC-228	1.181E+00		1.297E+01	2.505E+01	2.343E+00	0.047
TH-230	-1.704E+02		4.421E+02	7.407E+02	5.874E+01	-0.230
PA-231	5.901E+01		9.833E+01	1.612E+02	1.364E+01	0.366
TH-231	-3.554E+00		2.772E+01	4.594E+01	7.225E+00	-0.077
PA-233	1.039E+00		6.193E+00	1.073E+01	2.408E+00	0.097
PA-234	1.598E+00		7.307E+00	1.265E+01	1.208E+00	0.126
PA-234M	-3.492E+02		3.905E+02	6.357E+02	5.904E+01	-0.549
TH-234	-7.408E-01		4.730E+01	8.127E+01	6.068E+00	-0.009
U-235	-9.036E+00		1.682E+01	2.444E+01	4.342E+00	-0.370
NP-237	-2.204E+01		1.333E+01	1.997E+01	2.063E+00	-1.104
NP-239	3.055E+00		7.368E+00	1.290E+01	1.304E+00	0.237
AM-241	-7.648E+00		4.655E+00	7.271E+00	5.161E-01	-1.052
AM-243	-6.195E-01		2.488E+00	3.957E+00	3.462E-01	-0.157
CM-243	-2.537E+00		1.450E+01	2.457E+01	1.998E+00	-0.103

Summary of Nuclide Activity
Sample ID : 1111067-02

Page : 7
Acquisition date : 25-NOV-2011 14:19:16

Total number of lines in spectrum 16
Number of unidentified lines 11
Number of lines tentatively identified by NID 5 31.25%

Nuclide Type : FISSION

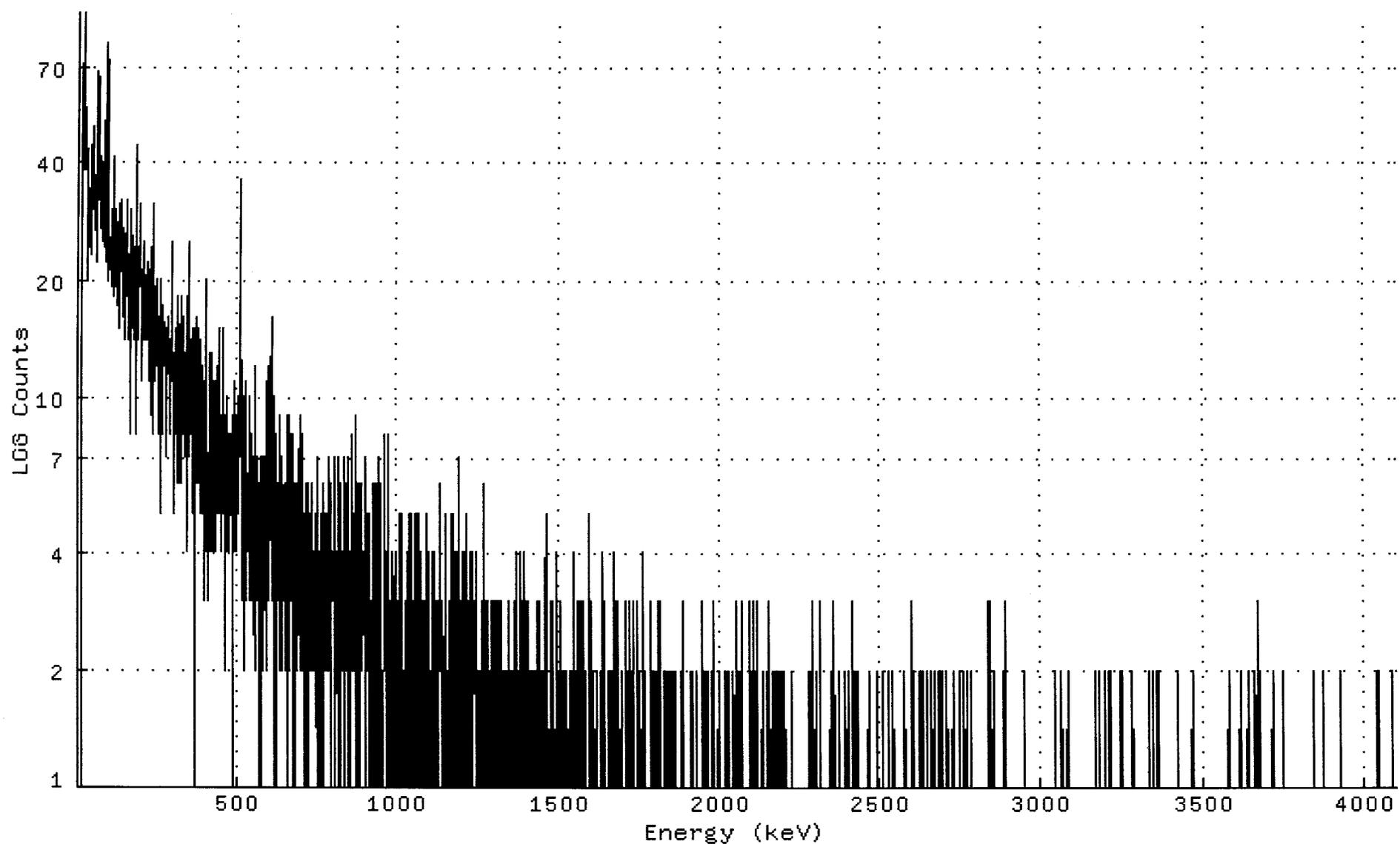
Nuclide	Hlife	Decay	Wtd Mean	Wtd Mean	Decay Corr	2-Sigma Error	2-Sigma %Error	Flags
			Uncorrected	Decay Corr				
CS-137	30.17Y	1.00	6.096E+00	6.096E+00	4.209E+00	69.04		
CE-141	32.50D	1.01	2.693E+00	2.730E+00	2.846E+00	104.27		
Total Activity :			8.789E+00	8.826E+00				

Grand Total Activity : 8.789E+00 8.826E+00

Flags: "K" = Keyline not found
"E" = Manually edited

"M" = Manually accepted
"A" = Nuclide specific abn. limit

Spectrum : DKA100:[GAMMA.SCUSR.ARCHIVE]SMP_111106702_GE4_GAW11_171333.CNF;1
Title :
Sample Title: BLANK
Start Time: 25-NOV-2011 14:19 Sample Time: 25-NOV-2011 00:00 Energy Offset: 6.14527E-01
Real Time : 0 02:00:01.43 Sample ID : 1111067-02 Energy Slope : 9.99512E-01
Live Time : 0 02:00:00.00 Sample Type: WATER Energy Quad : 0.00000E+00



Channel Contents for DKA100: [GAMMA.SCUSR.ARCHIVE] SMP_111106702_GE4_GAW11_171333

Channel

1:	0	0	0	0	0	0	0	0
9:	0	0	0	0	0	0	52	97
17:	75	63	68	45	38	46	47	55
25:	45	38	47	38	37	27	43	33
33:	20	34	31	34	24	25	30	35
41:	23	32	26	42	40	49	48	35
49:	30	30	30	31	30	31	37	31
57:	32	22	36	34	30	51	68	64
65:	35	44	35	32	36	32	32	36
73:	27	32	41	39	35	25	28	29
81:	25	30	25	51	24	33	31	22
89:	32	26	45	80	66	32	29	24
97:	20	21	21	25	24	24	24	25
105:	26	30	26	26	19	30	22	20
113:	18	41	20	23	29	19	26	26
121:	27	30	17	20	21	17	22	28
129:	25	15	27	31	19	22	28	24
137:	25	25	32	25	17	16	19	27
145:	23	24	15	15	18	26	14	21
153:	26	20	32	23	18	21	18	17
161:	14	20	23	22	8	21	19	25
169:	30	22	19	23	15	16	15	24
177:	21	19	21	24	24	8	10	21
185:	44	30	21	14	18	24	15	18
193:	22	22	19	31	23	20	19	21
201:	18	20	16	11	15	24	25	24
209:	24	22	14	17	19	14	14	17
217:	19	22	14	16	18	19	21	16
225:	16	19	21	16	11	15	11	23
233:	24	9	17	8	14	31	15	17
241:	13	19	15	11	12	14	15	12
249:	13	20	16	16	14	16	15	14
257:	8	8	20	16	5	13	12	15
265:	14	8	8	17	13	16	15	14
273:	12	13	13	15	15	9	7	11
281:	10	8	16	12	13	16	15	13
289:	10	12	8	11	14	14	14	11
297:	15	13	25	14	9	12	8	5
305:	13	12	11	8	15	11	14	13
313:	13	13	14	6	14	18	13	6
321:	10	9	10	11	18	8	13	6
329:	10	16	12	13	8	16	11	10
337:	7	11	9	13	9	8	9	12
345:	18	10	4	13	12	8	25	14
353:	7	13	8	14	10	10	8	15
361:	10	6	5	7	5	9	4	0
369:	15	8	8	11	15	16	8	11
377:	6	8	10	6	15	7	9	7
385:	14	7	10	11	5	7	6	9
393:	12	9	5	11	6	9	3	4
401:	6	20	4	6	8	6	7	3
409:	6	3	5	4	13	5	7	10
417:	7	4	13	4	10	7	8	6
425:	6	8	10	7	4	11	11	6

433:	4	4	9	4	8	12	5	6
441:	10	8	6	15	5	6	8	9
449:	8	7	9	4	7	8	7	5
457:	6	15	8	6	9	4	2	2
465:	4	5	10	8	4	6	6	6
473:	7	8	6	8	4	6	8	6
481:	6	5	6	4	9	1	7	4
489:	5	10	9	4	8	4	11	4
497:	9	6	6	6	8	10	10	5
505:	6	10	7	7	14	31	29	36
513:	13	12	3	7	7	5	7	8
521:	3	7	10	2	9	11	6	3
529:	6	7	8	5	6	4	4	6
537:	5	7	3	8	3	10	4	8
545:	5	6	3	5	6	4	7	6
553:	4	4	3	2	5	12	4	6
561:	7	5	7	5	3	5	3	4
569:	1	6	6	2	4	1	7	6
577:	3	7	4	5	7	2	7	4
585:	7	6	4	3	4	4	2	6
593:	5	7	6	10	12	6	11	5
601:	6	3	6	5	12	7	8	10
609:	16	14	8	3	7	5	4	4
617:	10	1	4	3	7	1	6	6
625:	8	7	5	4	6	3	4	3
633:	5	5	2	5	9	5	5	6
641:	2	3	7	5	5	5	4	4
649:	3	3	6	2	6	4	3	3
657:	3	1	5	4	9	9	7	4
665:	2	2	4	8	4	4	3	3
673:	3	4	5	8	2	1	7	4
681:	5	0	2	5	6	3	3	5
689:	5	6	2	3	7	7	5	7
697:	6	9	3	7	2	3	2	3
705:	3	2	4	8	4	5	2	1
713:	4	4	2	4	1	6	3	4
721:	5	3	4	1	6	5	4	4
729:	3	3	5	2	3	2	4	6
737:	5	2	3	3	4	2	3	2
745:	5	4	5	2	2	2	0	5
753:	7	1	6	4	3	1	0	4
761:	2	2	1	4	2	4	3	5
769:	5	5	4	4	6	0	4	3
777:	3	4	5	2	4	3	2	3
785:	3	5	3	5	2	7	2	4
793:	4	1	3	6	2	5	3	3
801:	4	3	4	4	7	3	4	1
809:	4	4	3	3	4	3	3	1
817:	3	7	5	2	4	4	6	1
825:	3	1	4	4	2	4	4	2
833:	2	3	2	3	3	7	1	6
841:	5	3	3	2	6	2	7	6
849:	0	3	2	1	4	2	2	3
857:	4	2	6	8	2	3	8	2
865:	4	5	2	5	2	5	2	3
873:	1	3	9	4	5	2	3	1
881:	2	2	0	6	4	4	3	3
889:	2	6	5	2	3	3	3	4
897:	3	4	2	1	2	7	0	6
905:	2	3	5	5	2	3	4	4

913:	0	1	3	5	0	2	3	0
921:	3	2	1	3	5	2	1	6
929:	4	1	6	1	0	2	1	5
937:	3	6	0	5	4	2	3	7
945:	0	1	3	3	3	4	6	1
953:	2	2	1	0	2	2	2	3
961:	2	4	5	8	2	3	1	4
969:	2	8	3	1	2	3	2	3
977:	1	2	2	1	2	1	4	1
985:	2	1	4	3	0	3	1	2
993:	1	3	4	0	3	1	1	2
1001:	3	0	2	1	1	2	5	4
1009:	1	3	2	5	1	2	4	3
1017:	2	0	2	2	1	1	1	1
1025:	3	2	0	3	1	4	1	2
1033:	1	2	1	3	5	2	0	5
1041:	3	2	0	5	4	4	0	1
1049:	1	2	3	2	1	4	5	1
1057:	2	5	2	2	5	1	3	2
1065:	5	1	3	1	0	4	3	0
1073:	3	2	4	2	1	2	3	2
1081:	1	0	2	0	1	3	3	3
1089:	3	4	3	1	5	1	3	4
1097:	0	2	4	0	1	2	1	2
1105:	0	1	0	3	4	2	1	1
1113:	4	1	1	0	2	2	2	2
1121:	0	3	1	1	3	0	1	0
1129:	0	4	3	4	6	4	2	2
1137:	3	1	1	2	1	0	2	2
1145:	1	2	2	3	1	0	3	5
1153:	1	1	1	1	0	2	1	3
1161:	0	1	1	1	3	3	4	5
1169:	2	1	2	3	1	4	5	1
1177:	0	2	1	4	2	2	4	2
1185:	0	4	2	1	0	2	3	1
1193:	2	7	0	1	1	1	3	0
1201:	1	0	1	4	1	0	0	4
1209:	2	2	2	2	0	5	2	1
1217:	3	2	1	2	0	2	3	1
1225:	3	2	4	0	2	1	0	2
1233:	3	1	0	4	2	2	2	2
1241:	2	3	1	1	4	1	4	0
1249:	2	1	0	2	1	0	2	0
1257:	2	1	0	1	1	3	2	1
1265:	0	1	2	1	6	1	3	3
1273:	1	1	0	1	0	3	3	1
1281:	0	1	0	1	2	2	1	2
1289:	0	1	1	2	2	3	3	3
1297:	0	1	1	1	3	0	3	2
1305:	0	2	2	0	2	1	2	3
1313:	1	2	0	0	3	0	0	2
1321:	0	3	0	2	2	1	1	1
1329:	2	1	2	0	2	0	1	0
1337:	0	2	0	2	2	1	2	0
1345:	3	0	0	1	2	1	2	0
1353:	1	2	1	2	1	1	1	0
1361:	1	1	1	1	1	3	0	4
1369:	0	1	0	0	2	1	1	2
1377:	2	1	4	1	3	3	1	0
1385:	1	2	2	3	1	1	0	1

1393:	0	4	1	3	1	3	0	1
1401:	0	2	1	2	2	2	3	2
1409:	1	1	1	1	2	2	1	1
1417:	0	2	2	2	0	0	1	0
1425:	2	1	1	2	1	0	0	0
1433:	1	3	1	1	0	0	1	3
1441:	0	0	1	1	0	1	1	2
1449:	0	0	2	1	0	1	2	1
1457:	1	1	1	1	3	5	0	0
1465:	0	1	1	0	0	0	1	1
1473:	1	2	2	3	1	2	0	1
1481:	3	2	0	0	2	0	1	1
1489:	0	1	1	0	1	4	1	3
1497:	1	2	0	1	1	1	0	0
1505:	0	1	2	3	1	1	0	1
1513:	0	1	2	2	0	2	0	0
1521:	2	1	1	1	1	2	0	0
1529:	1	1	1	0	2	0	0	0
1537:	0	1	1	1	0	1	1	2
1545:	0	3	0	4	1	0	2	2
1553:	0	2	0	1	3	0	0	1
1561:	1	0	3	1	3	0	2	0
1569:	1	0	3	1	0	0	1	0
1577:	0	0	1	3	1	2	1	0
1585:	1	0	0	1	1	1	1	0
1593:	1	2	0	1	5	0	0	0
1601:	1	1	0	3	1	2	1	2
1609:	0	0	0	0	0	1	1	2
1617:	0	2	1	2	0	0	0	1
1625:	0	1	0	0	1	1	2	0
1633:	0	0	4	1	2	1	0	3
1641:	0	0	0	2	1	1	0	0
1649:	1	1	1	1	1	2	0	0
1657:	1	1	0	2	1	2	1	0
1665:	1	1	2	2	1	1	4	1
1673:	1	0	1	3	0	1	1	1
1681:	0	2	2	1	0	3	2	1
1689:	1	0	0	0	2	0	0	0
1697:	2	1	0	0	1	1	1	1
1705:	1	3	1	0	0	0	0	2
1713:	1	0	1	1	0	0	1	2
1721:	3	1	1	2	2	2	2	1
1729:	0	3	0	3	0	0	0	1
1737:	0	0	0	0	1	1	3	0
1745:	0	0	1	0	2	1	0	2
1753:	0	1	1	0	1	0	0	0
1761:	0	0	0	4	1	2	1	0
1769:	0	0	1	0	0	0	1	1
1777:	1	1	1	1	0	1	2	1
1785:	1	3	2	0	0	0	0	1
1793:	2	0	0	1	0	2	0	0
1801:	0	0	2	0	1	3	2	2
1809:	2	0	3	0	0	0	3	1
1817:	0	0	1	0	0	1	1	1
1825:	0	2	2	1	0	0	0	2
1833:	1	0	0	0	2	1	0	2
1841:	1	1	0	2	0	0	0	2
1849:	1	0	2	1	0	2	1	0
1857:	0	0	0	0	1	0	2	0
1865:	1	0	1	1	1	1	0	1

1873:	1	1	0	1	0	0	0	0
1881:	1	2	0	1	3	0	1	1
1889:	0	1	0	0	1	0	0	1
1897:	0	0	0	1	1	1	1	1
1905:	0	0	0	0	0	1	2	0
1913:	1	2	0	2	1	0	0	1
1921:	1	1	0	0	0	2	0	0
1929:	0	0	1	0	0	1	0	0
1937:	1	0	1	0	1	1	1	3
1945:	1	0	1	0	2	1	0	1
1953:	1	0	1	2	0	1	0	0
1961:	0	0	1	2	0	1	0	1
1969:	0	1	0	1	0	0	0	2
1977:	1	1	3	1	0	1	1	1
1985:	1	0	0	0	0	1	0	1
1993:	0	1	0	2	0	2	0	1
2001:	0	1	0	0	1	0	0	1
2009:	0	0	0	0	0	1	2	1
2017:	0	1	1	0	2	0	0	1
2025:	0	1	2	0	2	1	0	0
2033:	1	0	1	0	1	2	0	2
2041:	0	1	0	1	1	1	0	1
2049:	3	1	0	0	0	0	1	1
2057:	0	2	0	0	0	2	0	0
2065:	0	0	0	1	1	0	3	1
2073:	0	1	1	0	0	0	0	0
2081:	1	0	0	0	0	0	0	0
2089:	0	1	0	3	3	1	2	0
2097:	0	1	0	1	2	1	1	0
2105:	3	1	1	0	1	1	2	0
2113:	1	3	2	1	1	0	0	1
2121:	0	0	0	0	1	0	1	1
2129:	0	0	1	2	0	1	1	0
2137:	0	1	0	1	1	0	0	0
2145:	0	0	1	2	0	0	1	1
2153:	3	0	1	0	1	0	0	0
2161:	0	2	0	1	1	2	0	0
2169:	0	2	0	0	2	0	1	0
2177:	1	0	0	0	2	1	0	0
2185:	1	2	2	1	0	0	2	0
2193:	1	1	1	1	1	0	1	2
2201:	1	2	0	1	0	1	0	0
2209:	0	0	0	1	0	0	0	0
2217:	0	1	1	0	1	1	2	0
2225:	0	0	1	0	1	1	1	0
2233:	0	0	0	1	0	0	0	0
2241:	0	0	0	0	0	1	0	0
2249:	0	0	1	0	0	0	0	0
2257:	1	1	0	0	0	0	0	1
2265:	0	0	1	0	0	0	0	0
2273:	0	0	0	0	1	2	1	1
2281:	0	1	2	1	0	3	0	0
2289:	1	0	0	0	0	0	0	0
2297:	0	2	1	0	0	1	0	0
2305:	0	0	0	0	1	0	3	0
2313:	0	0	0	0	0	0	1	1
2321:	0	0	0	1	0	0	0	0
2329:	0	1	1	0	0	0	0	0
2337:	1	0	0	0	1	1	1	0
2345:	2	0	0	0	0	1	0	1

2353:	1	0	0	3	0	1	1	0
2361:	1	1	0	0	0	1	1	1
2369:	0	0	0	0	2	0	0	1
2377:	0	0	0	0	0	1	0	0
2385:	0	0	0	2	0	2	0	1
2393:	0	0	0	1	1	0	2	0
2401:	0	1	0	0	0	0	1	0
2409:	0	1	1	3	0	2	1	2
2417:	0	0	0	0	1	1	1	2
2425:	0	0	0	2	2	1	0	1
2433:	0	0	0	0	0	0	0	1
2441:	1	0	0	0	0	0	1	1
2449:	0	1	0	0	0	0	0	0
2457:	0	0	0	0	0	0	0	2
2465:	2	0	0	1	1	0	0	0
2473:	0	0	0	1	0	0	0	1
2481:	0	0	1	0	1	0	0	1
2489:	2	1	1	1	0	0	0	0
2497:	0	0	0	1	1	0	0	1
2505:	0	2	0	0	0	0	0	1
2513:	0	0	0	1	0	0	0	0
2521:	0	0	1	0	2	1	0	0
2529:	0	0	0	1	0	0	0	1
2537:	0	0	0	2	1	1	0	0
2545:	1	0	0	0	0	0	1	0
2553:	0	0	0	0	0	0	1	0
2561:	1	1	0	0	0	0	0	0
2569:	0	0	0	0	1	0	2	1
2577:	0	0	1	0	0	1	1	0
2585:	0	0	0	0	0	0	0	1
2593:	1	0	1	0	3	0	0	2
2601:	0	0	1	0	0	0	0	1
2609:	0	1	0	0	0	0	1	1
2617:	1	1	2	2	0	0	0	0
2625:	2	0	1	0	1	0	0	0
2633:	2	0	0	1	0	0	0	0
2641:	0	1	0	0	1	2	0	1
2649:	0	0	0	0	0	1	0	1
2657:	1	2	1	0	1	0	0	0
2665:	0	0	1	2	0	0	1	1
2673:	1	0	0	0	0	0	0	0
2681:	0	2	1	2	2	1	0	0
2689:	0	2	0	0	0	0	0	1
2697:	0	0	1	1	0	1	1	0
2705:	0	2	0	0	1	0	1	0
2713:	0	1	0	0	1	0	0	0
2721:	0	0	0	0	2	1	0	0
2729:	1	0	0	0	0	0	1	0
2737:	0	0	0	0	1	0	2	0
2745:	0	0	0	0	0	1	0	0
2753:	1	0	0	1	0	2	2	0
2761:	0	0	0	0	0	0	0	2
2769:	0	0	1	1	0	1	0	0
2777:	1	0	2	0	0	1	0	0
2785:	1	0	1	0	0	0	0	1
2793:	1	1	0	0	0	1	0	0
2801:	1	0	0	0	0	0	0	1
2809:	0	0	1	1	0	0	1	0
2817:	0	0	0	0	0	0	1	0
2825:	0	0	1	0	0	1	1	0

2833:	1	0	1	3	0	0	0	0
2841:	3	2	0	1	0	0	0	0
2849:	2	0	0	0	0	0	0	0
2857:	0	0	0	0	0	1	0	0
2865:	0	0	0	0	1	0	0	1
2873:	0	1	0	0	1	0	0	0
2881:	0	2	1	1	1	0	1	1
2889:	3	0	1	0	1	0	1	1
2897:	0	1	0	0	1	1	1	0
2905:	1	0	0	0	0	0	0	1
2913:	1	1	0	0	0	0	0	0
2921:	0	0	0	0	1	1	1	0
2929:	0	1	0	0	0	0	0	1
2937:	0	0	0	1	1	0	0	0
2945:	0	0	2	0	1	0	1	0
2953:	1	1	0	0	0	0	0	1
2961:	0	0	0	0	1	1	0	0
2969:	1	0	0	1	1	0	0	0
2977:	1	0	0	0	0	0	0	0
2985:	0	1	0	0	1	0	0	0
2993:	1	0	0	0	0	0	1	0
3001:	0	0	0	1	0	1	0	1
3009:	0	0	0	0	1	0	0	0
3017:	0	0	0	0	0	0	0	0
3025:	1	0	0	0	0	0	1	0
3033:	0	1	0	0	0	0	0	2
3041:	0	0	0	0	0	1	0	0
3049:	0	1	0	0	0	0	0	0
3057:	1	0	0	0	2	0	0	0
3065:	0	1	0	0	1	1	0	0
3073:	0	0	1	0	1	0	0	2
3081:	0	0	0	0	1	0	0	0
3089:	0	0	0	0	1	0	0	0
3097:	0	1	0	0	0	0	1	0
3105:	0	0	0	0	0	0	0	0
3113:	1	0	1	0	0	0	0	1
3121:	0	0	0	0	0	1	0	0
3129:	0	0	0	0	0	1	1	0
3137:	1	1	0	0	0	0	0	0
3145:	1	0	1	0	0	1	1	0
3153:	1	0	0	0	0	0	0	0
3161:	1	0	1	1	0	0	2	0
3169:	0	0	1	0	0	1	0	0
3177:	0	0	2	0	0	1	1	0
3185:	1	1	0	1	0	0	0	0
3193:	0	0	0	1	2	0	0	0
3201:	0	0	0	1	1	0	0	1
3209:	2	0	1	2	0	1	0	0
3217:	1	0	0	0	1	0	0	0
3225:	0	1	0	0	0	1	0	0
3233:	0	0	0	1	0	1	0	0
3241:	0	2	0	1	0	2	0	1
3249:	0	0	0	0	0	0	1	1
3257:	1	0	1	0	0	0	0	0
3265:	0	0	0	1	1	1	0	0
3273:	0	0	0	0	0	0	0	1
3281:	2	0	0	1	0	1	0	0
3289:	0	1	0	0	0	0	1	0
3297:	0	0	1	0	0	1	0	0
3305:	1	0	0	0	1	0	1	0

3313:	0	0	1	0	0	0	1	0
3321:	0	0	0	0	0	0	0	0
3329:	0	1	0	2	0	0	0	0
3337:	0	0	0	0	0	1	0	2
3345:	0	0	0	1	0	0	0	0
3353:	0	1	1	2	0	0	2	0
3361:	1	0	1	0	0	0	0	0
3369:	0	0	0	0	0	1	0	0
3377:	0	0	0	0	0	0	0	0
3385:	0	0	0	0	1	0	0	0
3393:	1	0	1	0	0	0	0	1
3401:	0	1	0	0	0	1	0	0
3409:	0	0	0	0	0	0	0	0
3417:	0	0	0	1	0	2	0	0
3425:	0	0	0	0	1	0	1	0
3433:	1	0	0	0	0	1	0	0
3441:	0	0	0	0	0	0	0	1
3449:	0	0	0	0	0	0	0	0
3457:	1	0	0	0	0	1	0	0
3465:	2	0	0	0	0	0	0	0
3473:	1	0	0	0	1	0	0	0
3481:	0	0	0	0	0	0	0	0
3489:	0	0	0	1	0	0	0	0
3497:	0	0	0	0	0	0	0	0
3505:	0	1	1	0	1	1	1	1
3513:	0	1	0	0	0	0	1	0
3521:	0	0	0	1	1	1	1	0
3529:	0	0	0	0	0	0	0	0
3537:	0	0	0	0	0	0	0	0
3545:	0	0	0	1	0	0	1	1
3553:	0	0	0	1	1	0	0	1
3561:	0	0	0	0	1	1	0	0
3569:	1	1	1	0	0	0	0	0
3577:	0	2	0	0	0	0	0	0
3585:	0	0	0	1	0	0	0	0
3593:	1	0	0	0	0	1	0	1
3601:	0	0	1	1	0	0	1	1
3609:	0	0	0	0	0	2	1	1
3617:	0	1	0	0	0	0	0	0
3625:	0	1	0	0	0	1	0	0
3633:	1	0	0	0	2	0	0	0
3641:	0	0	0	0	0	0	0	0
3649:	0	0	0	0	0	0	0	0
3657:	0	0	0	2	0	0	0	0
3665:	0	0	3	1	0	1	0	0
3673:	0	0	0	2	0	0	0	0
3681:	0	1	1	0	0	0	1	0
3689:	0	0	0	1	0	0	1	0
3697:	0	1	0	0	0	1	0	0
3705:	1	1	0	0	0	0	0	0
3713:	0	2	0	0	0	1	0	1
3721:	0	0	0	0	0	0	0	0
3729:	0	0	0	0	0	0	0	0
3737:	0	0	0	1	0	0	0	0
3745:	2	0	1	1	0	0	0	0
3753:	0	1	0	0	1	1	0	0
3761:	0	0	0	0	0	0	0	0
3769:	1	0	1	1	0	0	0	0
3777:	0	1	0	0	0	0	0	0
3785:	1	1	1	0	0	0	0	1

3793:	0	0	0	0	0	0	0	0
3801:	0	0	0	0	1	0	0	0
3809:	0	0	0	1	1	0	0	0
3817:	0	0	1	0	1	0	0	0
3825:	0	0	1	0	0	1	0	0
3833:	0	0	0	0	0	1	0	1
3841:	0	2	0	0	0	0	0	0
3849:	0	0	0	0	0	0	1	0
3857:	0	0	0	1	0	0	1	0
3865:	0	0	0	0	0	0	2	0
3873:	1	1	0	0	0	1	0	0
3881:	0	1	0	0	0	0	1	0
3889:	0	0	0	0	0	0	1	1
3897:	0	1	0	0	0	0	1	0
3905:	0	1	1	0	0	0	0	0
3913:	1	0	0	0	0	0	0	0
3921:	0	0	0	1	2	0	0	0
3929:	0	0	1	0	0	0	0	0
3937:	0	0	0	0	0	0	1	0
3945:	0	0	0	0	1	0	0	0
3953:	1	0	0	0	0	0	0	0
3961:	0	0	0	0	0	0	0	0
3969:	0	0	0	0	0	0	1	0
3977:	0	0	0	0	0	0	0	0
3985:	0	0	0	0	0	0	0	0
3993:	0	0	0	0	1	0	1	0
4001:	0	0	0	0	0	0	0	1
4009:	0	1	0	0	0	0	0	0
4017:	0	1	0	0	0	0	0	0
4025:	0	0	0	0	0	0	0	0
4033:	0	0	2	0	0	0	0	0
4041:	0	0	2	0	0	0	0	1
4049:	0	0	0	0	0	0	1	1
4057:	0	0	0	0	0	0	0	0
4065:	1	0	1	0	0	0	0	0
4073:	0	1	0	0	0	0	0	0
4081:	0	0	0	2	1	0	0	0
4089:	0	1	1	0	0	0	0	0

108
11/28/14

Sample ID : 1111067-03

Acquisition date : 25-NOV-2011 14:11:21

VAX/VMS Peak Search Report Generated 25-NOV-2011 16:12:10.10

Configuration : DKA100:[GAMMA.SCUSR.ARCHIVE]SMP_111106703_GE3_GAW11_171332.CN
 Analyses by : PEAK V16.9 ENBACK V1.6 PEAKEFF V2.2
 Client ID : ALSW-01-111107
 Deposition Date :
 Sample Date : 7-NOV-2011 00:00:00. Acquisition date : 25-NOV-2011 14:11:21
 Sample ID : 1111067-03 Sample Quantity : 2.00000E+00 liter
 Sample type : WATER Sample Geometry : 0
 Detector name : GE3 Detector Geometry: GAW-11
 Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:35.70 0.5%
 Start channel : 5 End channel : 4096
 Sensitivity : 2.40000 Gaussian : 15.00000
 Critical level : Yes

Post-NID Peak Search Report

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides
4	23.23	59	213	1.62	23.51	21	17	82.4	3.59E+00	
0	82.64	68	405	4.87	82.92	80	9	110.7		
0	184.19	156	142	1.94	184.48	178	11	33.8		
0	432.05	15	26	1.55	432.36	429	7	124.3		
0	480.51	32	61	11.47	480.82	473	15	109.8		
0	563.04	63	50	12.14	563.35	554	19	60.7		
3	664.10	13	18	2.35	664.42	659	22	129.2	5.72E-01	
3	675.66	11	20	2.36	675.98	659	22	143.2		
0	710.08	25	13	4.22	710.40	706	8	64.9		
0	717.77	16	11	2.07	718.09	715	6	80.3		
0	793.62	12	14	2.00	793.95	790	8	118.3		
0	891.39	17	16	7.12	891.72	886	12	105.9		
0	955.80	12	12	1.54	956.14	951	7	110.8		
0	1019.21	18	21	10.28	1019.55	1010	17	127.2		
0	1045.49	18	9	5.62	1045.83	1041	9	76.4		
0	1065.23	13	12	1.69	1065.58	1061	8	104.2		
1	1070.86	6	4	2.18	1071.20	1070	7	98.5	1.34E+01	
1	1073.68	11	4	2.18	1074.03	1070	7	73.4		
0	1079.46	12	1	1.03	1079.81	1077	7	68.6		
0	1155.43	8	1	1.38	1155.78	1154	5	79.6		
0	1258.02	8	0	1.62	1258.38	1256	5	70.7		
0	1264.84	10	0	2.65	1265.20	1262	6	63.2		
5	1456.96	7	0	3.47	1457.33	1456	10	53.2	9.96E-01	
5	1461.34*	17	0	2.77	1461.70	1456	10	65.6		K-40
0	1518.46	6	0	1.98	1518.83	1516	6	81.6		
0	1764.54	9	1	1.09	1764.92	1762	6	80.9		
0	1949.60	11	0	1.66	1950.00	1946	9	60.3		
0	2066.40	5	0	2.41	2066.80	2064	6	89.4		
0	2467.37	5	0	2.41	2467.80	2464	7	89.4		
0	2615.25*	13	0	2.54	2615.68	2612	9	70.2		

AG
11/28/14

Summary of Nuclide Activity
Sample ID : 1111067-03

Page : 2
Acquisition date : 25-NOV-2011 14:11:21

Total number of lines in spectrum 30
Number of unidentified lines 23
Number of lines tentatively identified by NID 7 23.33%

Nuclide Type : NATURAL

Nuclide	Hlife	Decay	Wtd Mean	Wtd Mean	Decay Corr	2-Sigma Error	2-Sigma	Flags
			Uncorrected	Decay Corr				
K-40	1.28E+09Y	1.00	pCi/liter 4.343E+01	pCi/liter 4.343E+01		2.880E+01	66.32	
Total Activity :			4.343E+01	4.343E+01				

Grand Total Activity : 4.343E+01 4.343E+01

Flags: "K" = Keyline not found
"E" = Manually edited

"M" = Manually accepted
"A" = Nuclide specific abn. limit

Nuclide Type: NATURAL

Nuclide	Energy	%Abn	%Eff	Uncorrected pCi/liter	Decay Corr pCi/liter	2-Sigma %Error	Status
K-40	1460.81	10.67*	6.985E-01	4.343E+01	4.343E+01	66.32	OK

Final Mean for 1 Valid Peaks = 4.343E+01 +/- 2.880E+01 (66.32%)

Flag: "*" = Keyline

---- Identified Nuclides ----

Nuclide	Activity (pCi/liter)	Act error	MDA (pCi/liter)	MDA error	Act/MDA
K-40	4.343E+01	2.880E+01	3.401E+01	2.940E+00	1.277

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/liter)	K.L. Ided	Act error	MDA (pCi/liter)	MDA error	Act/MDA
BE-7	-1.464E+00		1.945E+01	3.307E+01	3.641E+00	-0.044
NA-22	-2.344E-01		2.304E+00	4.328E+00	3.590E-01	-0.054
AL-26	1.837E+00		1.823E+00	4.725E+00	3.962E-01	0.389
TI-44	-2.214E+00		1.596E+00	2.595E+00	2.418E-01	-0.853
SC-46	1.844E+00		2.465E+00	5.101E+00	4.722E-01	0.361
V-48	7.883E-01		4.272E+00	8.487E+00	7.764E-01	0.093
CR-51	-1.153E+00		2.184E+01	3.739E+01	3.522E+00	-0.031
MN-54	-1.720E+00		2.076E+00	3.448E+00	3.204E-01	-0.499
CO-56	-1.306E+00		2.598E+00	4.547E+00	4.226E-01	-0.287
CO-57	-2.391E-01		1.188E+00	2.052E+00	1.919E-01	-0.117
CO-58	-3.050E-01		2.184E+00	4.095E+00	3.810E-01	-0.074
FE-59	-4.004E-01		4.140E+00	8.001E+00	7.554E-01	-0.050
CO-60	-2.526E+00		2.384E+00	3.593E+00	2.997E-01	-0.703
ZN-65	-1.014E+00		5.022E+00	9.153E+00	7.945E-01	-0.111
GA-67	-2.235E+02		6.318E+02	3.779E+02	1.012E+03	-0.591
SE-75	3.662E-01		2.104E+00	3.718E+00	3.018E-01	0.098
RB-82	-1.534E+01		2.164E+01	3.699E+01	3.420E+00	-0.415
RB-83	-4.778E-02		3.816E+00	7.243E+00	1.227E+00	-0.007
KR-85	2.676E+02		5.675E+02	1.068E+03	1.160E+02	0.251
SR-85	1.423E+00		3.018E+00	5.680E+00	6.166E-01	0.251
Y-88	1.877E+00		2.007E+00	5.206E+00	4.351E-01	0.360
NB-93M	-5.722E+01		7.550E+01	1.255E+02	4.799E+01	-0.456
NB-94	-2.694E-01		2.069E+00	3.844E+00	3.566E-01	-0.070
NB-95	-9.028E-01		2.863E+00	5.185E+00	4.785E-01	-0.174
NB-95M	-4.820E+02		2.217E+02	3.086E+02	2.518E+01	-1.562
ZR-95	2.333E-01		4.380E+00	8.314E+00	8.340E-01	0.028
MO-99	4.328E+02		1.464E+03	2.911E+03	2.669E+02	0.149
RU-103	-2.213E-01		2.327E+00	3.972E+00	6.230E-01	-0.056
RU-106	-7.801E+00		1.766E+01	3.174E+01	4.454E+00	-0.246
AG-108M	1.823E+00		2.081E+00	4.094E+00	3.733E-01	0.445
CD-109	-6.900E+00		3.282E+01	5.253E+01	7.765E+00	-0.131
AG-110M	-1.813E+00		2.064E+00	2.960E+00	2.653E-01	-0.612
SN-113	-5.585E-01		2.480E+00	4.152E+00	4.602E-01	-0.135
TE123M	-7.055E-01		1.432E+00	2.396E+00	1.974E-01	-0.294
SB-124	2.571E-01		2.655E+00	4.973E+00	4.942E-01	0.052
I-125	3.652E+01		3.587E+01	6.609E+01	7.309E+00	0.553
SB-125	-3.783E+00		4.988E+00	6.825E+00	7.605E-01	-0.554
SB-126	-8.363E+00		1.178E+01	1.752E+01	1.597E+00	-0.477
SN-126	-3.061E+00		3.423E+00	5.149E+00	6.922E-01	-0.594
SB-127	3.832E+01		1.427E+02	2.698E+02	2.425E+01	0.142
I-129	8.218E+00		4.351E+00	8.046E+00	1.092E+00	1.021
I-131	2.851E+00		9.251E+00	1.633E+01	1.656E+00	0.175

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/liter)	K.L. Ided	Act error	MDA (pCi/liter)	MDA error	Act/MDA
TE-132	-2.722E+01		7.080E+01	1.182E+02	9.660E+00	-0.230
BA-133	-1.221E+00		2.781E+00	4.515E+00	6.358E-01	-0.270
CS-134	-3.249E+00		2.390E+00	3.823E+00	3.794E-01	-0.850
CS-135	-1.381E+00		7.676E+00	1.303E+01	1.046E+00	-0.106
CS-136	5.141E+00		7.845E+00	1.520E+01	1.398E+00	0.338
CS-137	1.507E+00		1.942E+00	4.037E+00	3.592E-01	0.373
LA-138	1.875E+00		3.413E+00	7.311E+00	6.119E-01	0.256
CE-139	-1.185E+00		1.430E+00	2.323E+00	1.859E-01	-0.510
BA-140	3.944E+00		1.781E+01	3.433E+01	1.158E+01	0.115
LA-140	6.036E-01		6.339E+00	1.267E+01	1.074E+00	0.048
CE-141	-2.902E+00		3.393E+00	5.172E+00	1.090E+00	-0.561
CE-144	3.863E+00		9.269E+00	1.668E+01	1.504E+00	0.232
PM-144	-4.114E-01		1.944E+00	3.579E+00	3.233E-01	-0.115
PM-145	-4.666E+00		9.894E+00	1.512E+01	9.886E+00	-0.309
PM-146	-2.967E+00		4.199E+00	6.500E+00	7.176E-01	-0.456
ND-147	1.143E+01		4.040E+01	7.835E+01	8.416E+00	0.146
EU-152	-1.836E+00		1.329E+01	2.538E+01	2.713E+00	-0.072
GD-153	-1.368E+00		4.137E+00	7.130E+00	8.302E-01	-0.192
EU-154	-6.536E-01		6.424E+00	1.207E+01	1.001E+00	-0.054
EU-155	-1.647E+00		4.154E+00	6.515E+00	8.601E-01	-0.253
EU-156	1.821E+01		3.954E+01	8.054E+01	1.861E+01	0.226
HO-166M	4.529E+00		3.201E+00	6.466E+00	5.874E-01	0.700
HF-172	-1.296E+00		8.712E+00	1.509E+01	1.394E+00	-0.086
LU-172	1.508E+01		2.098E+01	4.580E+01	4.020E+00	0.329
LU-173	3.350E+00		6.144E+00	1.110E+01	8.882E-01	0.302
HF-175	-1.523E+00		1.966E+00	3.076E+00	2.948E-01	-0.495
LU-176	-6.122E-01		1.475E+00	2.427E+00	2.096E-01	-0.252
TA-182	-5.859E+00		9.028E+00	1.533E+01	1.325E+00	-0.382
IR-192	4.692E+00		3.835E+00	7.261E+00	8.007E-01	0.646
HG-203	-1.648E-01		2.281E+00	3.893E+00	3.198E-01	-0.042
BI-207	-2.346E-02		1.624E+00	2.807E+00	2.911E-01	-0.008
TL-208	-1.982E-01		6.756E+00	1.280E+01	1.306E+00	-0.015
BI-210M	-2.646E+00		2.663E+00	4.131E+00	3.333E-01	-0.640
PB-210	3.522E+01		4.525E+01	8.261E+01	7.259E+00	0.426
PB-211	3.379E+01		4.932E+01	9.166E+01	1.002E+01	0.369
BI-212	9.681E+00		1.516E+01	3.106E+01	2.837E+00	0.312
PB-212	-2.709E-02		3.479E+00	6.450E+00	5.260E-01	-0.004
BI-214	3.237E+00		5.350E+00	1.008E+01	9.918E-01	0.321
PB-214	-5.933E+00		4.748E+00	7.339E+00	7.197E-01	-0.808
RN-219	-4.269E+00		2.285E+01	3.837E+01	4.191E+00	-0.111
RA-223	9.615E+00		3.664E+01	6.440E+01	5.844E+00	0.149
RA-224	3.546E+01		3.734E+01	6.770E+01	5.518E+00	0.524
RA-225	7.107E+00		1.398E+01	2.365E+01	2.334E+00	0.300
RA-226	2.707E+01		6.724E+01	8.054E+01	1.475E+02	0.336
TH-227	-2.849E+01		1.352E+01	1.899E+01	1.549E+00	-1.501
AC-228	-2.002E+00		7.961E+00	1.419E+01	1.311E+00	-0.141
TH-230	-5.287E+02		4.082E+02	6.676E+02	6.192E+01	-0.792
PA-231	3.084E+01		6.155E+01	1.101E+02	9.397E+00	0.280

----- Non-Identified Nuclides -----

Nuclide	Key-Line Activity (pCi/liter)	K.L. Ided	Act error	MDA (pCi/liter)	MDA error	Act/MDA
TH-231	-3.908E+01		2.693E+01	3.918E+01	6.567E+00	-0.997
PA-233	1.384E+00		5.835E+00	1.022E+01	2.301E+00	0.135
PA-234	-2.482E+00		4.708E+00	7.920E+00	7.196E-01	-0.313
PA-234M	2.065E+01		2.448E+02	4.694E+02	4.275E+01	0.044
TH-234	-1.477E+01		4.468E+01	7.734E+01	6.524E+00	-0.191
U-235	-3.529E+00		1.046E+01	1.691E+01	2.970E+00	-0.209
NP-237	-4.029E+00		1.011E+01	1.586E+01	2.094E+00	-0.254
NP-239	-8.096E+01		8.747E+02	1.538E+03	1.736E+02	-0.053
AM-241	-6.198E+00		4.339E+00	7.087E+00	5.480E-01	-0.875
AM-243	-1.220E+00		2.354E+00	3.905E+00	4.166E-01	-0.312
CM-243	-6.377E-01		9.340E+00	1.597E+01	1.272E+00	-0.040

Summary of Nuclide Activity
Sample ID : 1111067-03

Page : 7
Acquisition date : 25-NOV-2011 14:11:21

Total number of lines in spectrum 30
Number of unidentified lines 23
Number of lines tentatively identified by NID 7 23.33%

Nuclide Type : NATURAL

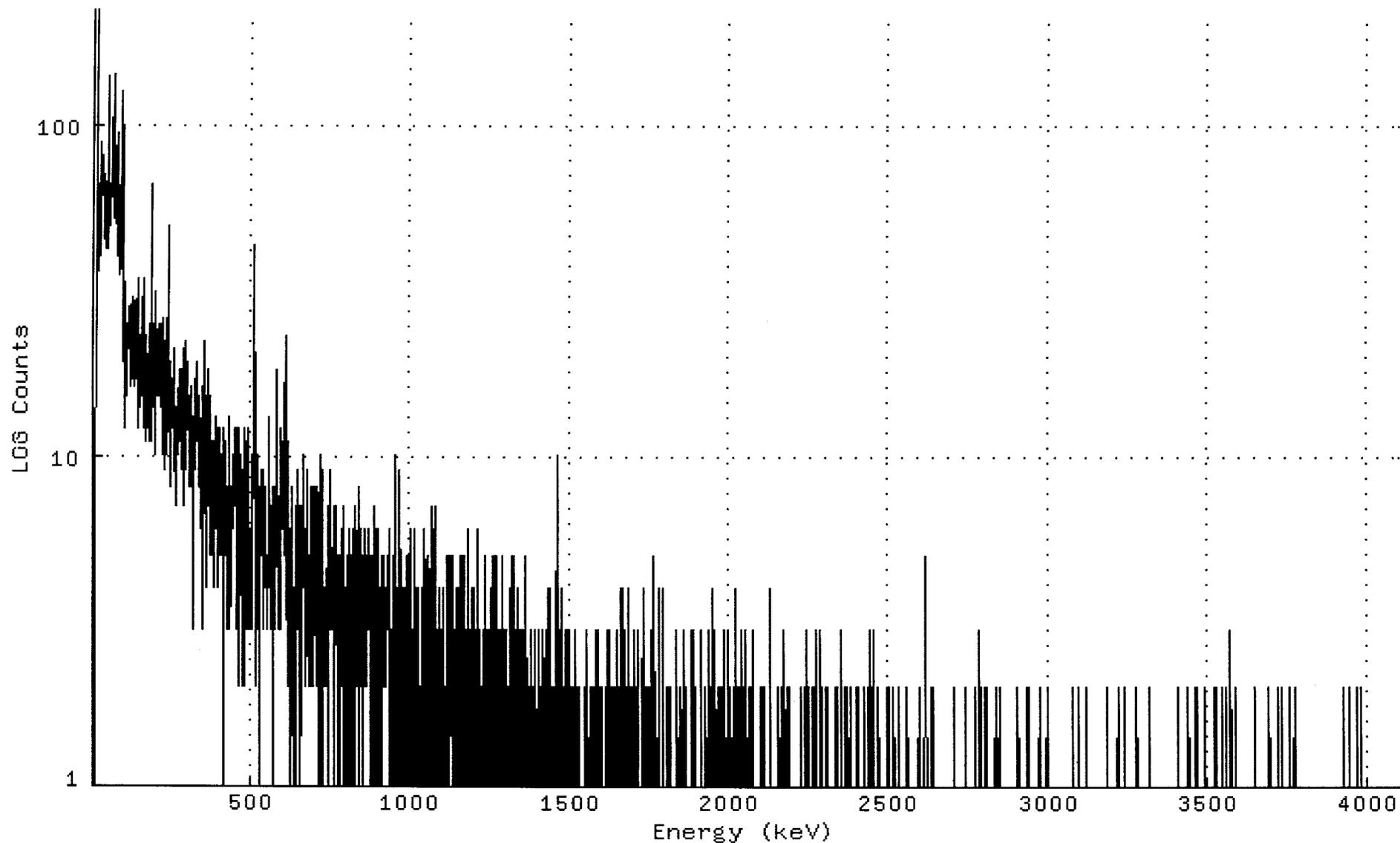
Nuclide	Hlife	Decay	Wtd Mean Uncorrected pCi/liter	Wtd Mean Decay Corr pCi/liter	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	4.343E+01	4.343E+01	2.880E+01	66.32	
Total Activity :			4.343E+01	4.343E+01			

Grand Total Activity : 4.343E+01 4.343E+01

Flags: "K" = Keyline not found
"E" = Manually edited

"M" = Manually accepted
"A" = Nuclide specific abn. limit

Spectrum : DKA100:[GAMMA.SCUSR.ARCHIVE]SMP_111106703_GE3_GAW11_171332.CNF;1
Title :
Sample Title: ALSW-01-111107
Start Time: 25-NOV-2011 14:11 Sample Time: 7-NOV-2011 00:00: Energy Offset: -2.78447E-01
Real Time : 0 02:00:35.70 Sample ID : 1111067-03 Energy Slope : 9.99940E-01
Live Time : 0 02:00:00.00 Sample Type: WATER Energy Quad : 0.00000E+00



0077

Channel Contents for DKA100: [GAMMA.SCUSR.ARCHIVE] SMP_111106703_GE3_GAW11_171332

Channel

1:	0	0	0	0	0	0	0	0
9:	0	192	224	177	134	66	68	64
17:	65	54	41	44	36	44	74	71
25:	65	74	88	65	67	68	80	75
33:	61	59	70	61	50	66	45	62
41:	64	67	42	50	47	69	139	77
49:	58	57	42	60	65	66	62	49
57:	58	68	60	67	62	65	77	142
65:	63	69	73	68	53	50	53	62
73:	54	60	84	87	40	94	58	53
81:	70	60	49	64	63	42	35	37
89:	39	40	37	43	125	78	26	29
97:	36	19	31	28	23	12	33	23
105:	17	19	25	17	21	15	25	21
113:	28	21	24	22	23	28	25	19
121:	16	25	27	30	28	21	17	27
129:	24	22	16	18	28	29	18	21
137:	26	19	17	27	26	34	20	21
145:	30	12	19	20	19	23	20	23
153:	14	21	21	20	17	15	30	19
161:	23	24	34	29	12	17	16	23
169:	23	11	18	20	17	16	19	16
177:	13	11	23	23	25	15	25	20
185:	28	66	51	11	17	20	16	16
193:	18	14	25	19	16	20	31	20
201:	10	22	16	21	24	20	23	19
209:	17	25	15	22	15	19	14	14
217:	14	25	18	11	26	20	10	13
225:	13	12	9	19	10	22	15	16
233:	26	13	19	10	23	19	49	38
241:	15	23	17	8	15	19	11	9
249:	14	17	17	12	13	14	13	12
257:	19	12	21	16	11	7	8	12
265:	13	14	9	11	14	15	13	14
273:	14	18	14	12	11	12	18	14
281:	13	10	18	13	9	15	7	9
289:	21	14	7	17	18	9	18	22
297:	10	14	12	14	19	13	16	14
305:	12	15	8	14	8	12	12	16
313:	16	8	13	13	12	3	13	8
321:	9	16	12	9	10	17	16	12
329:	14	12	12	19	11	11	8	9
337:	12	10	15	11	10	9	6	9
345:	7	9	8	11	16	12	3	18
353:	22	8	14	21	11	4	15	8
361:	9	10	11	18	10	8	7	8
369:	14	9	9	15	5	9	12	5
377:	11	9	9	8	9	5	10	11
385:	5	4	8	7	13	6	8	10
393:	6	8	4	10	6	12	5	8
401:	8	6	5	12	7	10	9	7
409:	6	5	9	6	5	7	1	8
417:	12	10	7	5	7	7	6	8
425:	7	5	3	5	3	4	7	13

433:	7	4	3	4	6	5	8	7
441:	5	10	6	6	8	7	7	11
449:	7	12	10	7	8	7	6	3
457:	12	7	7	12	4	9	11	4
465:	2	7	8	6	10	8	7	5
473:	2	8	9	9	3	8	5	6
481:	2	5	12	6	11	4	3	6
489:	8	6	8	12	7	8	3	4
497:	6	5	6	5	3	3	9	4
505:	5	10	6	9	10	18	43	37
513:	30	14	7	6	3	5	2	9
521:	10	3	5	6	6	7	1	6
529:	7	8	7	7	5	8	9	6
537:	7	5	8	5	3	9	3	8
545:	4	5	5	4	6	4	5	5
553:	4	3	5	4	6	8	13	13
561:	7	3	6	6	7	6	5	6
569:	1	8	6	0	4	5	5	3
577:	8	5	5	6	7	7	6	18
585:	7	3	7	5	4	6	7	8
593:	3	3	6	12	8	9	6	9
601:	11	8	8	8	6	6	7	5
609:	12	23	11	8	9	4	5	2
617:	7	11	6	5	2	6	5	3
625:	4	5	1	2	8	4	7	7
633:	3	4	2	2	2	3	1	1
641:	7	4	3	1	7	6	6	9
649:	6	3	6	7	6	5	6	5
657:	1	2	3	2	3	5	7	7
665:	10	4	4	4	6	5	4	4
673:	2	3	4	9	4	3	3	3
681:	3	2	5	4	3	4	3	8
689:	2	6	5	5	2	3	3	2
697:	4	5	8	5	5	7	6	8
705:	4	2	3	5	8	7	7	6
713:	0	1	2	3	6	10	6	0
721:	4	2	4	4	9	5	5	4
729:	1	4	4	2	2	4	4	2
737:	3	2	4	2	3	7	7	3
745:	2	3	1	9	4	4	3	5
753:	4	3	5	4	5	3	4	7
761:	4	3	6	1	0	7	5	5
769:	5	5	4	4	5	2	0	4
777:	3	0	4	5	2	4	3	5
785:	3	6	5	4	2	2	1	7
793:	7	3	2	4	0	3	3	2
801:	3	0	5	4	5	5	2	1
809:	3	6	1	1	3	5	4	1
817:	2	3	3	1	2	4	6	4
825:	4	5	5	1	2	2	7	5
833:	2	2	3	2	4	1	3	8
841:	4	4	7	5	2	4	6	2
849:	4	1	5	5	3	5	4	3
857:	6	5	2	4	3	4	4	3
865:	2	5	3	6	3	3	3	3
873:	5	2	4	3	0	4	5	3
881:	1	5	2	1	1	0	1	4
889:	7	4	2	6	2	1	5	1
897:	0	4	1	6	3	5	4	3
905:	3	1	2	4	3	1	5	4

913:	3	2	4	2	4	2	2	2
921:	5	2	3	4	2	2	4	4
929:	4	3	3	5	3	6	2	4
937:	4	6	1	0	3	1	1	1
945:	1	2	5	2	1	3	3	0
953:	3	3	10	5	0	1	3	2
961:	2	4	4	1	4	2	0	3
969:	9	3	2	1	2	1	0	1
977:	0	2	3	1	4	4	3	1
985:	1	2	1	3	1	2	2	5
993:	1	5	3	1	4	1	2	2
1001:	4	6	2	2	0	2	2	1
1009:	3	0	2	2	1	4	2	6
1017:	3	2	1	1	3	4	2	4
1025:	1	1	1	3	2	0	1	1
1033:	1	0	2	1	2	3	4	0
1041:	2	2	5	0	4	4	6	4
1049:	0	2	2	2	1	2	5	5
1057:	1	5	1	1	3	2	2	4
1065:	3	7	4	0	2	1	4	1
1073:	3	6	1	0	1	1	7	0
1081:	1	3	0	0	2	1	2	3
1089:	1	0	0	2	4	2	2	3
1097:	1	2	0	1	1	3	4	1
1105:	1	0	1	2	2	2	2	0
1113:	1	3	2	5	2	1	3	5
1121:	5	3	0	2	0	5	2	3
1129:	2	4	2	1	2	2	5	0
1137:	2	1	3	0	2	3	3	2
1145:	0	1	4	3	4	0	4	0
1153:	0	1	2	5	1	0	0	3
1161:	2	3	1	3	0	1	5	0
1169:	4	5	1	2	1	1	0	3
1177:	1	3	1	6	1	2	0	3
1185:	1	2	2	1	2	3	1	3
1193:	4	0	4	2	1	4	2	2
1201:	1	2	1	1	2	2	3	2
1209:	2	1	2	6	1	0	2	1
1217:	1	2	3	0	2	1	2	0
1225:	0	0	1	1	1	1	0	3
1233:	3	1	1	5	1	1	4	2
1241:	3	0	3	1	1	3	1	2
1249:	2	1	1	1	0	4	0	0
1257:	0	5	3	0	0	0	0	3
1265:	2	5	0	0	2	1	5	2
1273:	0	2	2	3	1	2	0	1
1281:	2	3	1	1	2	3	2	0
1289:	1	5	3	1	1	0	1	2
1297:	3	0	1	1	1	3	2	2
1305:	3	0	0	2	1	1	1	2
1313:	1	4	1	1	1	2	0	1
1321:	2	5	2	4	1	2	3	3
1329:	5	1	1	2	1	1	3	3
1337:	1	0	0	3	4	2	2	1
1345:	2	0	3	0	1	2	2	1
1353:	3	3	2	0	1	1	1	2
1361:	5	1	3	1	3	2	0	0
1369:	0	0	2	0	0	1	2	1
1377:	0	0	3	2	1	0	2	2
1385:	0	0	0	1	1	1	1	1

1393:	0	3	0	1	0	0	1	0
1401:	3	2	1	1	1	0	1	1
1409:	2	1	1	2	1	2	0	0
1417:	2	3	2	0	1	1	2	1
1425:	3	1	1	0	1	1	1	1
1433:	2	4	0	1	1	4	0	1
1441:	1	1	0	2	0	1	2	1
1449:	1	0	1	2	0	2	0	0
1457:	3	1	2	2	10	10	3	1
1465:	0	0	3	0	0	2	2	3
1473:	0	2	1	0	4	0	2	1
1481:	2	1	0	2	1	0	2	1
1489:	0	3	0	3	0	3	0	3
1497:	0	0	1	0	3	0	1	0
1505:	1	2	0	2	1	2	2	2
1513:	2	0	0	0	0	2	3	1
1521:	0	0	2	1	1	2	0	0
1529:	1	2	2	1	0	1	1	0
1537:	1	1	0	1	0	1	0	0
1545:	0	2	0	0	2	0	3	0
1553:	1	3	2	1	0	1	0	1
1561:	0	1	2	1	1	1	1	0
1569:	2	0	2	1	0	2	1	0
1577:	0	1	2	1	2	1	3	0
1585:	1	3	1	0	2	3	0	0
1593:	2	0	1	1	2	1	1	2
1601:	1	2	1	1	1	0	0	0
1609:	0	0	1	0	2	1	0	0
1617:	1	1	1	1	3	1	1	0
1625:	3	1	2	2	0	1	1	1
1633:	0	2	1	0	2	2	0	0
1641:	1	1	1	2	0	0	0	3
1649:	0	1	3	1	0	0	1	2
1657:	1	2	1	1	0	4	1	2
1665:	0	4	3	0	2	0	1	2
1673:	1	0	0	3	1	0	2	1
1681:	1	1	3	0	4	1	0	1
1689:	1	2	0	0	0	1	2	0
1697:	0	0	1	1	2	0	0	2
1705:	3	2	1	2	0	0	1	0
1713:	3	1	1	0	1	0	0	0
1721:	0	0	0	1	0	1	0	0
1729:	0	2	3	2	1	4	0	1
1737:	2	1	2	0	2	2	1	0
1745:	0	1	2	1	0	2	0	0
1753:	1	0	1	0	0	0	3	2
1761:	0	1	2	1	1	5	0	0
1769:	1	0	1	0	0	0	0	0
1777:	1	1	2	3	1	3	4	0
1785:	0	1	1	0	1	1	1	0
1793:	4	1	2	1	1	0	1	0
1801:	0	1	0	0	0	0	2	1
1809:	2	0	1	1	1	0	0	0
1817:	2	0	1	1	1	1	1	0
1825:	0	0	0	0	1	0	0	1
1833:	0	0	3	1	0	2	0	1
1841:	0	0	0	1	2	2	1	1
1849:	2	1	0	1	0	0	0	1
1857:	3	1	1	0	1	0	0	0
1865:	0	1	2	1	1	0	1	0

1873:	1	1	0	1	1	0	0	0
1881:	0	1	1	1	1	3	0	3
1889:	1	2	3	1	0	1	0	0
1897:	2	0	0	1	1	1	1	0
1905:	1	0	1	1	0	1	0	2
1913:	3	0	0	1	0	1	1	0
1921:	0	0	1	1	0	2	1	2
1929:	0	1	1	0	0	1	1	3
1937:	1	0	2	0	2	2	0	0
1945:	0	0	2	0	1	4	2	1
1953:	1	0	0	0	0	3	1	0
1961:	0	0	0	0	2	1	2	0
1969:	1	0	1	0	0	0	0	2
1977:	1	1	1	0	2	0	3	0
1985:	1	1	1	1	0	1	1	0
1993:	0	1	2	3	0	0	1	0
2001:	0	0	0	1	1	2	1	0
2009:	0	1	1	0	0	0	0	2
2017:	1	1	1	1	4	1	1	0
2025:	2	1	1	0	0	0	1	0
2033:	2	0	1	0	0	1	0	0
2041:	1	3	0	0	2	1	1	0
2049:	3	0	0	1	1	0	1	1
2057:	1	0	0	0	2	0	0	0
2065:	0	2	2	1	0	0	0	0
2073:	2	0	3	1	0	0	0	0
2081:	0	0	0	1	0	1	0	0
2089:	0	1	0	1	1	0	0	1
2097:	0	2	1	1	1	2	0	0
2105:	1	0	2	0	0	0	0	1
2113:	2	1	0	0	0	0	1	0
2121:	1	0	1	0	0	0	1	0
2129:	4	0	2	1	1	0	1	0
2137:	0	1	0	1	0	1	1	0
2145:	0	0	1	0	1	1	0	1
2153:	1	0	2	1	0	0	1	0
2161:	1	0	2	1	0	1	1	0
2169:	1	0	0	0	0	3	0	0
2177:	1	0	1	0	1	2	1	0
2185:	0	1	1	2	0	1	0	1
2193:	0	1	1	1	1	1	0	0
2201:	1	1	0	0	0	0	0	0
2209:	0	0	1	1	1	1	1	1
2217:	1	0	1	1	1	0	1	2
2225:	1	1	0	1	0	0	1	0
2233:	0	0	1	2	1	0	0	1
2241:	0	1	2	0	3	0	0	0
2249:	2	0	0	0	0	0	1	0
2257:	0	1	0	1	1	2	0	2
2265:	0	0	2	0	2	1	0	2
2273:	0	2	3	0	0	0	0	1
2281:	0	0	0	0	0	3	1	0
2289:	0	0	1	2	0	0	0	0
2297:	0	1	0	0	0	2	1	1
2305:	0	0	1	0	1	2	0	0
2313:	0	1	0	0	0	1	1	0
2321:	1	1	0	0	0	0	0	1
2329:	0	1	0	1	2	0	1	0
2337:	1	0	0	2	0	1	1	1
2345:	0	0	1	0	0	3	0	0

2353:	1	0	0	0	0	0	0	0	0
2361:	0	0	1	0	2	1	0	1	1
2369:	2	0	1	1	0	0	1	1	1
2377:	0	0	2	1	0	0	0	0	0
2385:	1	0	0	0	0	1	0	0	0
2393:	0	1	0	0	0	1	1	1	0
2401:	2	1	0	0	0	2	1	1	0
2409:	0	0	0	0	0	0	0	0	1
2417:	0	0	0	0	0	2	0	0	0
2425:	0	0	0	1	1	1	0	0	0
2433:	0	1	2	0	0	0	3	1	1
2441:	1	0	0	1	2	1	0	0	0
2449:	2	0	0	0	0	1	3	1	1
2457:	0	0	1	1	0	0	0	0	0
2465:	0	0	2	2	1	0	0	0	0
2473:	0	0	0	1	0	0	0	0	0
2481:	0	0	0	0	0	0	0	0	1
2489:	1	1	1	0	0	0	1	2	2
2497:	0	1	2	1	2	0	0	0	0
2505:	0	0	1	0	1	0	0	0	0
2513:	0	0	0	2	0	0	0	0	0
2521:	0	0	1	0	0	0	0	0	0
2529:	1	0	0	2	0	1	0	1	1
2537:	0	0	0	0	0	0	0	0	0
2545:	0	0	0	0	0	0	0	1	1
2553:	0	2	0	0	1	2	0	0	0
2561:	0	1	0	0	0	0	0	0	0
2569:	0	0	0	0	0	0	1	1	1
2577:	0	1	0	1	1	0	0	0	0
2585:	1	0	0	0	0	0	0	0	0
2593:	0	0	2	0	1	0	0	0	0
2601:	0	0	0	1	0	0	1	0	0
2609:	1	0	0	0	2	2	5	5	5
2617:	2	2	1	0	0	0	0	0	0
2625:	1	0	0	1	0	0	0	0	0
2633:	2	0	0	0	2	0	0	2	2
2641:	1	0	1	1	0	1	0	0	0
2649:	0	0	1	0	0	0	0	0	0
2657:	0	0	0	1	0	0	1	0	0
2665:	1	1	0	0	1	1	1	0	0
2673:	0	1	0	0	0	0	0	0	0
2681:	0	0	0	0	0	1	0	0	0
2689:	0	1	0	0	1	0	0	1	1
2697:	0	1	0	0	0	1	1	0	0
2705:	2	1	0	0	0	1	0	0	0
2713:	0	0	0	0	0	0	0	0	0
2721:	0	0	0	1	0	0	0	0	0
2729:	0	0	0	0	0	1	0	0	0
2737:	0	1	0	2	0	0	0	0	0
2745:	0	0	0	1	0	1	1	0	0
2753:	0	0	0	0	0	0	0	0	0
2761:	0	0	0	0	1	0	0	0	0
2769:	0	0	2	0	0	0	0	1	1
2777:	0	0	1	0	0	0	0	3	3
2785:	0	1	0	2	0	0	0	1	1
2793:	0	0	1	0	1	0	0	2	2
2801:	0	1	0	0	2	1	0	0	0
2809:	0	1	0	1	0	1	1	0	0
2817:	1	0	0	0	1	0	0	0	0
2825:	0	1	0	0	0	1	0	0	0

2833:	0	2	0	0	0	0	0	0	0
2841:	0	0	1	0	0	2	0	0	1
2849:	0	0	0	0	0	0	0	0	0
2857:	0	0	0	1	0	1	0	0	0
2865:	0	0	0	1	1	0	1	0	0
2873:	0	1	1	0	1	0	0	0	0
2881:	0	0	1	0	0	0	0	0	0
2889:	0	0	0	0	0	0	0	0	0
2897:	1	1	0	1	0	2	0	0	0
2905:	2	1	0	1	0	0	0	0	0
2913:	0	0	0	0	0	0	1	1	1
2921:	0	0	1	1	1	0	1	0	0
2929:	0	0	0	0	2	0	1	0	0
2937:	0	2	0	0	0	0	0	0	0
2945:	1	0	0	0	1	1	0	0	0
2953:	0	0	0	0	1	0	0	0	0
2961:	0	1	0	1	1	0	1	1	1
2969:	0	0	0	2	0	0	0	0	1
2977:	0	1	0	0	0	1	0	0	0
2985:	0	1	0	1	1	1	1	0	0
2993:	1	0	1	2	1	1	0	0	0
3001:	0	1	0	0	0	0	0	0	0
3009:	1	0	1	0	0	1	0	0	0
3017:	0	0	0	1	1	0	0	0	0
3025:	0	0	0	0	0	0	1	0	0
3033:	1	0	0	1	0	1	1	0	0
3041:	0	1	0	0	1	0	0	0	0
3049:	0	0	0	0	0	0	1	1	1
3057:	0	1	0	0	0	0	0	0	0
3065:	1	0	0	1	1	0	0	0	0
3073:	1	0	0	1	2	0	0	0	0
3081:	0	0	0	1	0	0	0	0	0
3089:	0	0	0	0	2	0	0	0	0
3097:	0	0	1	1	0	1	0	0	0
3105:	1	1	0	1	1	0	0	0	0
3113:	0	0	0	1	2	0	0	0	0
3121:	0	0	1	0	1	0	0	0	0
3129:	0	1	0	0	0	0	0	0	0
3137:	0	1	0	0	0	1	0	0	0
3145:	0	0	0	1	0	0	0	0	0
3153:	0	1	0	0	0	0	1	0	0
3161:	1	0	0	0	1	1	0	0	1
3169:	0	0	1	0	0	1	0	0	0
3177:	0	0	0	0	1	0	0	0	0
3185:	0	2	1	0	0	1	0	0	0
3193:	1	0	0	0	0	1	0	0	1
3201:	0	0	0	0	0	0	0	0	0
3209:	1	0	0	0	0	1	0	0	0
3217:	0	2	0	0	0	0	0	0	0
3225:	0	0	0	0	0	0	0	0	0
3233:	0	0	0	0	0	2	1	1	1
3241:	0	0	0	0	0	0	0	0	1
3249:	0	0	0	0	0	1	0	0	1
3257:	0	0	1	0	0	0	0	0	0
3265:	0	0	0	0	0	0	0	0	0
3273:	1	0	0	0	2	0	0	0	0
3281:	0	0	0	1	0	1	0	0	0
3289:	0	0	1	0	1	0	0	0	0
3297:	0	0	0	0	0	0	1	0	0
3305:	0	0	1	0	0	0	0	0	0

3313:	0	0	2	0	0	0	0	1
3321:	0	0	0	1	0	0	1	0
3329:	0	0	0	0	0	0	0	0
3337:	0	1	0	0	0	1	0	0
3345:	1	0	1	0	0	0	1	0
3353:	1	0	0	0	1	0	0	0
3361:	0	0	0	0	0	0	0	1
3369:	0	0	1	0	0	1	0	0
3377:	0	0	0	0	0	0	0	0
3385:	0	1	0	1	0	0	0	0
3393:	0	1	0	0	0	0	0	0
3401:	0	0	1	0	0	1	2	0
3409:	0	0	0	0	1	0	0	0
3417:	1	0	1	0	0	0	0	1
3425:	0	0	0	0	0	0	0	0
3433:	0	0	0	0	1	0	2	0
3441:	0	1	1	1	0	1	1	0
3449:	1	0	0	0	0	0	1	0
3457:	0	0	1	0	2	0	0	1
3465:	2	0	0	1	1	0	0	1
3473:	0	0	0	0	0	1	0	0
3481:	1	0	0	0	0	0	0	0
3489:	2	0	0	0	0	0	0	0
3497:	0	0	1	0	1	0	0	0
3505:	0	0	0	1	0	0	0	1
3513:	0	1	1	0	0	0	0	0
3521:	1	2	0	2	0	0	0	0
3529:	0	0	1	1	0	1	0	0
3537:	1	0	0	0	0	0	0	2
3545:	0	0	0	0	0	0	0	0
3553:	0	0	0	0	1	2	0	0
3561:	0	0	0	0	1	0	0	0
3569:	1	0	3	0	0	1	0	0
3577:	0	0	0	0	0	0	0	0
3585:	2	1	0	0	0	0	1	0
3593:	0	0	0	0	1	0	1	0
3601:	1	0	1	0	0	0	0	0
3609:	0	0	0	0	0	1	0	0
3617:	0	0	0	0	1	0	0	0
3625:	0	0	0	0	0	0	0	0
3633:	0	1	0	0	0	0	0	1
3641:	0	0	0	0	0	2	1	1
3649:	0	0	1	0	0	0	0	0
3657:	0	0	0	0	1	1	0	0
3665:	0	0	0	0	0	0	0	0
3673:	0	0	0	0	0	0	0	1
3681:	0	1	0	1	1	0	0	1
3689:	0	0	2	1	0	0	0	0
3697:	0	0	0	0	0	0	1	1
3705:	1	1	1	0	1	1	0	0
3713:	0	1	0	0	0	2	1	0
3721:	0	0	0	0	0	0	0	0
3729:	0	0	2	0	0	0	0	1
3737:	0	0	0	0	1	0	0	1
3745:	1	0	0	1	1	0	0	0
3753:	1	2	0	0	0	1	1	0
3761:	0	0	0	0	1	0	0	0
3769:	0	2	1	1	0	0	1	0
3777:	0	0	0	0	0	0	0	0
3785:	0	0	1	0	0	1	1	0

3793:	0	0	0	0	0	0	0	0
3801:	0	1	0	1	0	1	1	0
3809:	0	0	0	0	0	0	1	0
3817:	0	0	0	0	1	0	0	1
3825:	1	0	1	0	1	0	1	0
3833:	0	0	1	1	0	1	0	0
3841:	1	1	1	0	1	0	1	0
3849:	0	1	0	0	0	0	0	0
3857:	0	1	0	0	0	0	0	1
3865:	0	1	0	0	0	0	0	0
3873:	0	0	0	0	0	0	0	0
3881:	0	0	1	0	1	0	0	0
3889:	1	0	0	0	0	0	0	0
3897:	0	0	0	1	0	0	0	0
3905:	0	0	0	0	0	0	0	0
3913:	0	0	0	0	0	1	0	0
3921:	0	2	0	1	0	0	0	0
3929:	0	1	1	0	0	0	0	0
3937:	1	1	2	0	0	0	0	0
3945:	0	0	0	0	0	0	0	0
3953:	0	0	0	0	0	1	1	1
3961:	0	0	1	1	2	1	0	0
3969:	0	0	1	0	0	0	0	0
3977:	0	2	0	0	1	0	0	0
3985:	0	0	1	0	0	0	0	0
3993:	0	0	0	1	0	1	0	1
4001:	1	1	1	0	0	0	0	0
4009:	0	0	0	0	1	0	0	0
4017:	0	0	0	0	0	0	0	0
4025:	0	1	0	0	0	0	0	0
4033:	0	0	0	0	0	0	0	0
4041:	0	0	0	0	0	0	0	0
4049:	0	0	0	0	0	0	0	0
4057:	0	1	0	0	1	0	1	0
4065:	0	0	0	0	0	0	0	1
4073:	0	0	0	0	0	0	0	0
4081:	0	0	1	0	0	0	0	0
4089:	0	0	0	0	0	0	1	0

Sample ID : 1111067-04

Acquisition date : 26-NOV-2011 11:48:09

VAX/VMS Peak Search Report Generated 26-NOV-2011 13:48:58.43

11/28/11

Configuration : DKA100: [GAMMA.SCUSR.ARCHIVE] SMP_111106704_GE3_GAW11_171362.CN
 Analyses by : PEAK V16.9 ENBACK V1.6 PEAKEFF V2.2
 Client ID : ALSW-01-111107
 Deposition Date :
 Sample Date : 7-NOV-2011 00:00:00. Acquisition date : 26-NOV-2011 11:48:09
 Sample ID : 1111067-04 Sample Quantity : 2.00000E+00 liter
 Sample type : WATER Sample Geometry : 0
 Detector name : GE3 Detector Geometry: GAW-11
 Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:35.61 0.5%
 Start channel : 5 End channel : 4096
 Sensitivity : 2.40000 Gaussian : 15.00000
 Critical level : Yes

Post-NID Peak Search Report

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides
0	52.78	65	365	2.97	53.06	51	7100.4			
0	77.18*	98	468	1.96	77.47	74	8	81.5		
2	84.30	51	242	1.66	84.59	82	23	92.0	1.50E+00	
2	87.69	37	216	1.67	87.98	82	23124.9			NP-237 SN-126 CD-109
0	192.18	29	99	2.96	192.47	190	6114.7			
0	198.56	41	96	2.87	198.85	196	6	80.9		
0	295.73*	26	66	1.12	296.03	293	7117.7	0.00E+00		PB-214
0	352.79*	47	82	2.10	353.09	349	10	82.6		PB-214
0	455.86	20	40	1.42	456.17	452	7116.5			
1	508.69	18	19	1.67	509.00	507	13109.6	1.99E+01		
1	513.69	31	15	1.67	514.00	507	13	84.3		KR-85 SR-85
0	525.28	28	35	5.89	525.59	521	11	91.7		
0	559.47	27	29	1.95	559.78	556	9	81.5		
0	725.76	35	10	4.28	726.09	721	11	49.8		BI-212
0	745.62	13	15	3.01	745.95	743	7117.8			
5	755.07	18	17	2.93	755.39	750	25	99.3	1.28E+00	
5	766.68	10	8	1.83	767.00	750	25106.6			NB-95
0	901.91	9	10	1.63	902.24	899	7129.1			
0	1071.44	18	21	8.83	1071.79	1063	14115.9			
0	1333.84	8	4	2.11	1334.20	1331	7110.4			
0	1345.15	13	2	5.65	1345.51	1341	9	69.3		
0	1372.75	9	8	3.16	1373.11	1369	8127.7			
0	1410.05	15	3	1.30	1410.41	1407	7	65.7		
0	1511.72	8	4	3.69	1512.09	1507	8110.7			
0	1658.99	6	1	1.52	1659.37	1656	6109.2			
0	1764.31	15	2	2.18	1764.70	1761	7	58.7		
0	2051.17	7	0	2.87	2051.57	2048	7	75.6		
0	2070.07	5	1	2.72	2070.47	2067	6125.3			
0	2164.87	7	2	1.22	2165.28	2160	8104.7			
0	2252.39	5	0	2.75	2252.80	2249	7	89.4		
0	2541.17	4	2	1.26	2541.60	2536	7150.5			
0	3024.91	8	0	3.31	3025.38	3022	7	70.7		

AG
11/28/11

Total number of lines in spectrum 32
 Number of unidentified lines 22
 Number of lines tentatively identified by NID 10 31.25%

Nuclide Type : FISSION

Nuclide	Hlife	Decay	Wtd Mean		Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
			Uncorrected pCi/liter	Decay Corr pCi/liter			
KR-85	10.72Y	1.00	7.186E+02	7.211E+02	6.137E+02	85.10	
SR-85	64.84D	1.23	3.142E+00	3.871E+00	3.294E+00	85.10	
NB-95	35.06D	1.47	1.575E+00	2.318E+00	2.482E+00	107.08	
CD-109	464.00D	1.03	3.241E+01	3.337E+01	4.198E+01	125.79	
SN-126	1.00E+05Y	1.00	3.258E+00	3.258E+00	4.093E+00	125.64	
NP-237	2.14E+06Y	1.00	9.562E+00	9.562E+00	12.01E+00	125.61	
Total Activity :			7.686E+02	7.735E+02			

Nuclide Type : NATURAL

Nuclide	Hlife	Decay	Wtd Mean		Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
			Uncorrected pCi/liter	Decay Corr pCi/liter			
BI-212	1.41E+10Y	1.00	4.226E+01	4.226E+01	2.148E+01	50.83	
PB-214	1602.00Y	1.00	8.712E+00	8.713E+00	5.932E+00	68.08	
Total Activity :			5.098E+01	5.098E+01			

Grand Total Activity : 8.195E+02 8.245E+02

Flags: "K" = Keyline not found "M" = Manually accepted
 "E" = Manually edited "A" = Nuclide specific abn. limit

Nuclide Type: FISSION

Nuclide	Energy	%Abn	%Eff	Uncorrected pCi/liter	Decay Corr pCi/liter	2-Sigma %Error	Status
KR-85	513.99	0.43*	1.841E+00	7.186E+02	7.211E+02	85.10	OK
Final Mean for 1 Valid Peaks = 7.211E+02+/- 6.137E+02 (85.10%)							
SR-85	513.99	99.27*	1.841E+00	3.142E+00	3.871E+00	85.10	OK
Final Mean for 1 Valid Peaks = 3.871E+00+/- 3.294E+00 (85.10%)							
NB-95	765.79	99.81*	1.246E+00	1.575E+00	2.318E+00	107.08	OK
Final Mean for 1 Valid Peaks = 2.318E+00+/- 2.482E+00 (107.08%)							
CD-109	88.03	3.72*	5.730E+00	3.241E+01	3.337E+01	125.79	OK
Final Mean for 1 Valid Peaks = 3.337E+01+/- 4.198E+01 (125.79%)							
SN-126	87.57	37.00*	5.731E+00	3.258E+00	3.258E+00	125.64	OK
Final Mean for 1 Valid Peaks = 3.258E+00+/- 4.093E+00 (125.64%)							
NP-237	86.50	12.60*	5.734E+00	9.562E+00	9.562E+00	125.61	OK
Final Mean for 1 Valid Peaks = 9.562E+00+/- 1.201E+01 (125.61%)							

Nuclide Type: NATURAL

Nuclide	Energy	%Abn	%Eff	Uncorrected pCi/liter	Decay Corr pCi/liter	2-Sigma %Error	Status
BI-212	727.17	11.80*	1.310E+00	4.226E+01	4.226E+01	50.83	OK
	1620.62	2.75	6.453E-01	-----	Line Not Found	-----	Absent
Final Mean for 1 Valid Peaks = 4.226E+01+/- 2.148E+01 (50.83%)							
PB-214	295.21	19.19	3.080E+00	8.370E+00	8.370E+00	118.09	OK
	351.92	37.19*	2.637E+00	8.905E+00	8.906E+00	83.27	OK
Final Mean for 2 Valid Peaks = 8.713E+00+/- 5.932E+00 (68.08%)							

Flag: "*" = Keyline

---- Identified Nuclides ----

Nuclide	Activity (pCi/liter)	Act error	MDA (pCi/liter)	MDA error	Act/MDA
KR-85	7.211E+02	6.137E+02	6.520E+02	7.079E+01	1.106
SR-85	3.871E+00	3.294E+00	3.500E+00	3.800E-01	1.106
NB-95	2.318E+00	2.482E+00	4.020E+00	3.710E-01	0.577
CD-109	3.337E+01	4.198E+01	5.011E+01	7.408E+00	0.666
SN-126	3.258E+00	4.093E+00	4.891E+00	6.575E-01	0.666
BI-212	4.226E+01	2.148E+01	2.726E+01	2.490E+00	1.550
PB-214	8.713E+00	5.932E+00	5.767E+00	5.656E-01	1.511
NP-237	9.562E+00	1.201E+01	1.435E+01	1.894E+00	0.667

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity K.L. (pCi/liter) Ided	Act error	MDA (pCi/liter)	MDA error	Act/MDA
BE-7	4.379E+00	2.110E+01	3.693E+01	4.065E+00	0.119
NA-22	-2.064E-01	1.957E+00	3.760E+00	3.119E-01	-0.055
AL-26	1.696E-01	1.773E+00	3.776E+00	3.166E-01	0.045
K-40	2.583E+01	2.945E+01	6.411E+01	5.543E+00	0.403
TI-44	-3.013E+00	1.671E+00	2.651E+00	2.469E-01	-1.136
SC-46	6.516E-01	2.270E+00	4.516E+00	4.180E-01	0.144
V-48	8.790E-01	5.240E+00	1.012E+01	9.260E-01	0.087
CR-51	1.345E+01	2.121E+01	3.899E+01	3.672E+00	0.345
MN-54	5.124E-01	2.414E+00	4.612E+00	4.287E-01	0.111
CO-56	-6.630E-01	2.260E+00	4.125E+00	3.833E-01	-0.161
CO-57	-4.737E-01	1.138E+00	1.936E+00	1.811E-01	-0.245
CO-58	3.405E-01	2.535E+00	4.853E+00	4.516E-01	0.070
FE-59	3.004E+00	4.531E+00	9.841E+00	9.291E-01	0.305
CO-60	4.626E-01	2.738E+00	5.219E+00	4.353E-01	0.089
ZN-65	-2.314E+00	5.428E+00	9.469E+00	8.219E-01	-0.244
GA-67	-6.554E+01	3.197E+02	4.816E+02	1.341E+03	-0.136
SE-75	2.550E-01	2.265E+00	3.956E+00	3.210E-01	0.064
RB-82	1.322E+00	2.412E+01	4.226E+01	3.907E+00	0.031
RB-83	4.042E-01	4.456E+00	6.387E+00	1.082E+00	0.063
Y-88	8.705E-01	2.547E+00	5.449E+00	4.553E-01	0.160
NB-93M	-8.886E+01	8.286E+01	1.290E+02	4.936E+01	-0.689
NB-94	-1.610E+00	1.954E+00	3.233E+00	2.999E-01	-0.498
NB-95M	-6.895E+02	2.608E+02	3.391E+02	2.768E+01	-2.033
ZR-95	6.154E+00	4.480E+00	9.293E+00	9.322E-01	0.662
MO-99	-5.707E+02	2.227E+03	3.625E+03	3.323E+02	-0.157
RU-103	2.436E-01	2.692E+00	4.657E+00	7.304E-01	0.052
RU-106	-2.907E+00	1.867E+01	3.465E+01	4.863E+00	-0.084
AG-108M	5.728E-01	1.939E+00	3.833E+00	3.496E-01	0.149
AG-110M	-2.653E+00	2.062E+00	3.239E+00	2.903E-01	-0.819
SN-113	5.585E-01	2.383E+00	4.233E+00	4.692E-01	0.132
TE123M	6.339E-01	1.404E+00	2.516E+00	2.073E-01	0.252
SB-124	-1.141E+00	2.368E+00	4.219E+00	4.192E-01	-0.270
I-125	5.450E-01	3.713E+01	6.596E+01	7.295E+00	0.008
SB-125	1.968E+00	5.319E+00	9.522E+00	1.061E+00	0.207
SB-126	-1.397E+00	9.880E+00	1.665E+01	1.517E+00	-0.084

----- Non-Identified Nuclides -----

Nuclide	Key-Line Activity (pCi/liter)	K.L. Ided	Act error	MDA (pCi/liter)	MDA error	Act/MDA
SB-127	-3.100E+01		1.535E+02	2.863E+02	2.572E+01	-0.108
I-129	-4.823E+00		4.274E+00	7.144E+00	9.693E-01	-0.675
I-131	-4.148E+00		1.049E+01	1.714E+01	1.738E+00	-0.242
TE-132	2.658E+00		8.667E+01	1.500E+02	1.226E+01	0.018
BA-133	7.589E-01		2.604E+00	4.269E+00	6.012E-01	0.178
CS-134	-5.163E+00		2.335E+00	3.248E+00	3.224E-01	-1.590
CS-135	5.364E-01		7.319E+00	1.278E+01	1.026E+00	0.042
CS-136	5.136E+00		6.830E+00	1.479E+01	1.361E+00	0.347
CS-137	1.591E+00		2.183E+00	4.428E+00	3.940E-01	0.359
LA-138	8.324E-01		2.918E+00	6.181E+00	5.173E-01	0.135
CE-139	6.719E-01		1.445E+00	2.595E+00	2.077E-01	0.259
BA-140	6.914E+00		1.682E+01	3.328E+01	1.123E+01	0.208
LA-140	-2.005E+00		7.014E+00	1.267E+01	1.074E+00	-0.158
CE-141	1.583E+00		3.672E+00	6.251E+00	1.331E+00	0.253
CE-144	8.505E+00		9.662E+00	1.780E+01	1.605E+00	0.478
PM-144	-6.305E-01		1.986E+00	3.603E+00	3.255E-01	-0.175
PM-145	-3.272E+00		8.899E+00	1.507E+01	9.852E+00	-0.217
PM-146	1.787E+00		4.496E+00	7.962E+00	8.790E-01	0.224
ND-147	-9.585E+00		3.926E+01	6.548E+01	7.034E+00	-0.146
EU-152	1.478E+01		1.902E+01	3.776E+01	4.037E+00	0.391
GD-153	-4.040E+00		4.767E+00	7.181E+00	8.361E-01	-0.563
EU-154	-5.752E-01		5.455E+00	1.048E+01	8.693E-01	-0.055
EU-155	3.928E+00	+	4.934E+00	7.737E+00	1.021E+00	0.508
EU-156	-1.406E+01		4.785E+01	8.662E+01	2.001E+01	-0.162
HO-166M	-1.181E+00		3.474E+00	6.289E+00	5.713E-01	-0.188
HF-172	5.932E-01		8.538E+00	1.503E+01	1.389E+00	0.039
LU-172	-1.517E+01		2.272E+01	3.812E+01	3.345E+00	-0.398
LU-173	-4.062E-01		6.268E+00	1.072E+01	8.583E-01	-0.038
HF-175	-4.758E-01		2.082E+00	3.485E+00	3.340E-01	-0.137
LU-176	9.125E-01		1.313E+00	2.430E+00	2.099E-01	0.376
TA-182	1.913E-01		8.702E+00	1.643E+01	1.420E+00	0.012
IR-192	-3.084E+00		4.164E+00	6.394E+00	7.051E-01	-0.482
HG-203	-7.835E-01		2.280E+00	3.793E+00	3.116E-01	-0.207
BI-207	1.861E+00		1.765E+00	3.562E+00	3.694E-01	0.522
TL-208	-3.342E+00		6.545E+00	1.189E+01	1.214E+00	-0.281
BI-210M	-2.527E+00		2.921E+00	4.613E+00	3.722E-01	-0.548
PB-210	2.429E+01		4.888E+01	8.430E+01	7.407E+00	0.288
PB-211	7.385E+00		5.345E+01	9.293E+01	1.016E+01	0.079
PB-212	-4.136E-01		3.522E+00	6.472E+00	5.279E-01	-0.064
BI-214	5.911E+00		5.590E+00	1.079E+01	1.061E+00	0.548
RN-219	9.370E+00		2.260E+01	4.069E+01	4.444E+00	0.230
RA-223	1.602E+00		3.507E+01	6.061E+01	5.501E+00	0.026
RA-224	5.978E+01		3.785E+01	7.080E+01	5.770E+00	0.844
RA-225	1.022E+01		1.401E+01	2.548E+01	2.515E+00	0.401
RA-226	2.615E+01		6.666E+01	8.171E+01	1.496E+02	0.320
TH-227	-3.431E+01		1.338E+01	1.763E+01	1.438E+00	-1.947
AC-228	4.420E+00		8.044E+00	1.594E+01	1.473E+00	0.277
TH-230	-7.267E+02		4.273E+02	6.826E+02	6.330E+01	-1.065

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/liter)	K.L. Ided	Act error	MDA (pCi/liter)	MDA error	Act/MDA
PA-231	3.019E+01		6.128E+01	1.030E+02	8.791E+00	0.293
TH-231	-4.431E+01		2.806E+01	4.072E+01	6.824E+00	-1.088
PA-233	7.095E-02		5.520E+00	9.539E+00	2.147E+00	0.007
PA-234	1.663E+00		4.832E+00	8.634E+00	7.845E-01	0.193
PA-234M	-1.002E+02		2.380E+02	4.226E+02	3.849E+01	-0.237
TH-234	-2.135E+00		4.510E+01	7.885E+01	6.652E+00	-0.027
U-235	2.298E+00		1.143E+01	1.926E+01	3.382E+00	0.119
AM-241	-1.203E+01		4.807E+00	6.613E+00	5.114E-01	-1.818
AM-243	-5.484E-01		2.493E+00	3.938E+00	4.201E-01	-0.139
CM-243	2.399E+00		9.268E+00	1.633E+01	1.300E+00	0.147

Total number of lines in spectrum 32
 Number of unidentified lines 22
 Number of lines tentatively identified by NID 10 31.25%

Nuclide Type : FISSION

Nuclide	Hlife	Decay	Wtd Mean		Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
			Uncorrected pCi/liter	Decay Corr pCi/liter			
KR-85	10.72Y	1.00	7.186E+02	7.211E+02	6.137E+02	85.10	
SR-85	64.84D	1.23	3.142E+00	3.871E+00	3.294E+00	85.10	
NB-95	35.06D	1.47	1.575E+00	2.318E+00	2.482E+00	107.08	
CD-109	464.00D	1.03	3.241E+01	3.337E+01	4.198E+01	125.79	
SN-126	1.00E+05Y	1.00	3.258E+00	3.258E+00	4.093E+00	125.64	
NP-237	2.14E+06Y	1.00	9.562E+00	9.562E+00	12.01E+00	125.61	
Total Activity :			7.686E+02	7.735E+02			

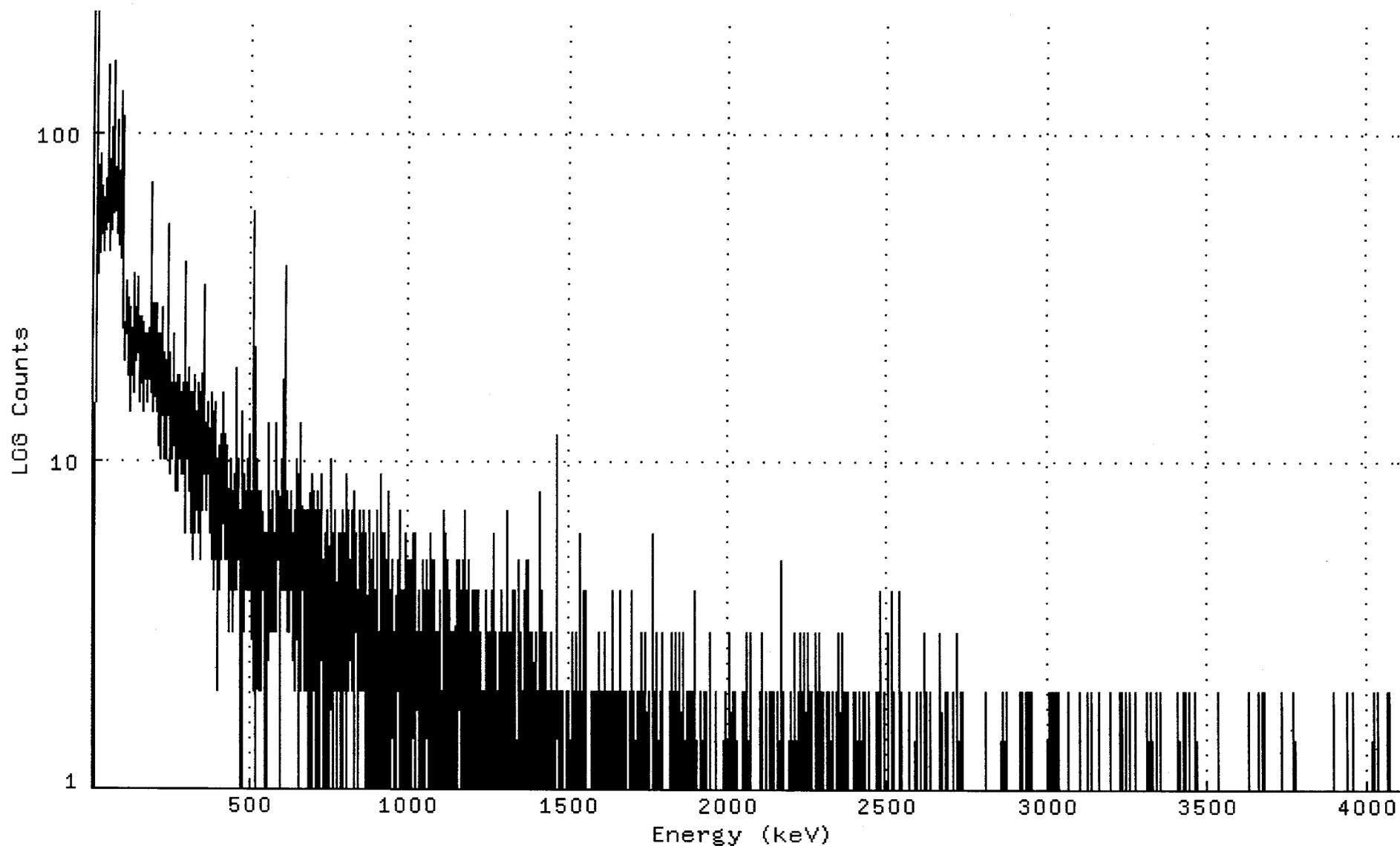
Nuclide Type : NATURAL

Nuclide	Hlife	Decay	Wtd Mean		Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
			Uncorrected pCi/liter	Decay Corr pCi/liter			
BI-212	1.41E+10Y	1.00	4.226E+01	4.226E+01	2.148E+01	50.83	
PB-214	1602.00Y	1.00	8.712E+00	8.713E+00	5.932E+00	68.08	
Total Activity :			5.098E+01	5.098E+01			

Grand Total Activity : 8.195E+02 8.245E+02

Flags: "K" = Keyline not found "M" = Manually accepted
 "E" = Manually edited "A" = Nuclide specific abn. limit

Spectrum : DKA100:[GAMMA.SCUSR.ARCHIVE]SMP_111106704_GE3_GAW11_171362.CNF;1
Title :
Sample Title: ALSW-01-111107
Start Time: 26-NOV-2011 11:48 Sample Time: 7-NOV-2011 00:00: Energy Offset: -2.78447E-01
Real Time : 0 02:00:35.61 Sample ID : 1111067-04 Energy Slope : 9.99940E-01
Live Time : 0 02:00:00.00 Sample Type: WATER Energy Quad : 0.00000E+00



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Channel Contents for DKA100: [GAMMA.SCUSR.ARCHIVE] SMP_111106704_GE3_GAW11_171362

Channel

1:	0	0	0	0	0	0	0	0
9:	0	218	233	177	138	78	65	57
17:	79	60	56	49	37	48	66	67
25:	84	81	85	53	63	56	49	57
33:	68	43	63	59	61	52	57	64
41:	72	53	50	55	56	58	158	78
49:	54	59	53	82	63	77	55	57
57:	43	56	51	52	61	65	64	162
65:	70	81	76	66	56	59	67	57
73:	69	60	77	79	86	108	75	65
81:	49	59	59	63	75	60	45	69
89:	43	47	41	46	131	94	31	42
97:	26	25	32	21	23	22	22	20
105:	23	30	32	24	24	27	35	28
113:	30	18	20	30	20	21	25	22
121:	19	29	14	23	25	25	21	21
129:	23	25	16	23	37	26	21	24
137:	20	22	24	25	29	24	28	36
145:	36	21	27	24	15	26	20	27
153:	25	21	27	17	21	22	27	20
161:	26	14	24	26	23	24	19	21
169:	21	18	19	16	20	21	24	15
177:	21	18	25	22	24	24	19	16
185:	25	49	70	17	19	14	27	21
193:	30	20	16	17	21	25	30	27
201:	17	14	26	25	20	30	18	24
209:	12	11	18	22	18	19	16	10
217:	20	18	24	15	19	15	29	15
225:	14	13	21	21	14	10	20	16
233:	20	10	11	16	17	17	52	43
241:	14	26	20	9	15	21	20	13
249:	13	16	10	14	14	15	17	13
257:	22	16	24	11	15	12	11	14
265:	13	17	8	15	8	14	18	11
273:	8	18	10	17	16	13	12	12
281:	14	9	15	16	12	13	9	17
289:	14	10	17	8	6	11	13	40
297:	12	17	10	13	14	12	11	10
305:	19	10	8	11	12	7	6	11
313:	16	11	10	8	11	12	16	9
321:	5	14	15	6	9	12	18	11
329:	14	11	14	7	9	9	6	14
337:	7	15	17	13	15	16	5	10
345:	10	9	8	7	10	7	10	33
353:	34	15	12	9	11	9	7	8
361:	13	10	12	11	10	9	10	15
369:	13	12	8	9	8	9	6	7
377:	7	5	16	11	7	8	9	13
385:	12	14	4	11	5	5	6	15
393:	5	8	9	3	9	10	2	8
401:	11	9	8	8	6	11	12	9
409:	7	7	5	11	11	8	16	8
417:	8	5	6	12	5	7	9	7
425:	9	5	9	10	11	6	8	6

433:	6	3	5	4	10	4	10	4
441:	9	6	6	7	8	4	3	7
449:	5	9	7	4	9	5	11	19
457:	8	4	8	9	5	8	7	10
465:	6	6	7	6	7	5	0	11
473:	7	8	1	14	9	3	7	6
481:	9	4	4	8	4	6	5	8
489:	4	4	5	6	7	10	9	4
497:	12	6	5	4	5	4	4	8
505:	7	4	4	2	14	14	42	57
513:	24	20	3	9	7	8	1	4
521:	3	4	10	8	9	6	5	8
529:	4	4	2	4	7	2	4	3
537:	8	6	5	6	5	4	4	6
545:	6	2	6	4	1	3	5	6
553:	6	3	1	6	3	5	13	10
561:	5	4	7	3	3	4	6	6
569:	8	8	7	7	3	6	4	3
577:	6	4	5	5	6	5	3	13
585:	9	7	5	7	8	5	8	6
593:	1	5	5	4	6	10	9	5
601:	4	8	4	5	7	4	4	5
609:	8	39	12	5	8	9	4	6
617:	3	4	8	7	4	7	3	5
625:	3	7	3	8	8	4	6	7
633:	4	4	5	5	6	4	3	2
641:	7	7	3	3	5	8	5	9
649:	3	10	4	2	9	5	5	1
657:	3	4	6	2	4	7	13	4
665:	4	6	4	6	6	3	2	2
673:	7	5	6	7	4	2	2	4
681:	3	7	1	5	6	1	4	2
689:	1	3	5	6	7	9	6	0
697:	7	4	3	6	2	5	4	4
705:	8	5	3	3	7	1	7	3
713:	4	5	1	8	3	7	3	1
721:	2	4	3	6	3	8	9	5
729:	3	2	0	1	3	5	4	4
737:	1	0	4	6	5	4	1	6
745:	7	6	4	3	1	3	2	2
753:	5	6	6	10	6	3	3	1
761:	4	6	4	5	4	2	7	2
769:	5	4	2	4	4	1	2	2
777:	3	6	2	4	4	3	2	4
785:	3	6	6	3	1	6	7	2
793:	1	1	7	5	4	4	6	4
801:	2	3	1	9	3	4	5	5
809:	7	2	5	5	2	3	3	5
817:	3	3	5	3	3	2	4	7
825:	4	2	3	0	4	3	8	3
833:	4	6	6	5	4	4	3	4
841:	4	3	0	7	3	3	2	3
849:	2	2	5	6	2	3	4	3
857:	4	3	5	2	7	3	1	2
865:	6	2	5	3	3	1	0	3
873:	1	6	2	5	6	0	7	3
881:	4	5	1	3	2	2	6	2
889:	5	3	1	2	2	3	3	1
897:	4	3	1	3	7	4	1	3
905:	0	2	3	1	3	3	3	9

913:	4	1	2	3	1	6	1	2
921:	2	2	3	2	6	1	0	3
929:	2	5	2	0	2	4	8	5
937:	1	2	1	2	3	2	4	0
945:	3	4	3	3	2	5	2	1
953:	2	2	0	3	1	3	3	1
961:	3	2	3	5	2	2	2	2
969:	3	7	1	3	3	0	0	3
977:	1	2	1	4	3	4	0	4
985:	4	4	3	3	5	2	1	2
993:	6	2	1	2	2	5	3	1
1001:	1	4	3	2	5	4	0	5
1009:	4	4	0	2	3	6	4	2
1017:	2	2	1	2	6	1	0	3
1025:	3	2	2	2	3	0	4	2
1033:	2	2	0	1	3	3	3	2
1041:	3	1	0	1	5	2	3	4
1049:	4	1	1	3	1	2	3	2
1057:	5	3	2	0	4	3	1	2
1065:	2	2	6	5	1	2	5	2
1073:	4	2	5	0	2	4	5	1
1081:	3	3	1	3	1	1	1	2
1089:	1	2	0	3	0	1	0	2
1097:	2	2	4	2	1	2	1	0
1105:	2	2	2	0	2	2	3	2
1113:	7	1	3	6	1	0	1	5
1121:	5	4	1	4	3	1	2	2
1129:	2	4	1	0	2	3	2	3
1137:	1	1	3	2	0	1	2	1
1145:	0	0	1	0	2	5	1	4
1153:	1	3	4	3	2	4	5	4
1161:	3	0	2	3	4	3	0	2
1169:	5	3	1	2	2	6	7	1
1177:	3	2	2	3	4	3	2	0
1185:	3	1	2	5	0	0	2	1
1193:	0	1	2	3	1	0	4	2
1201:	3	3	3	4	3	2	1	2
1209:	1	2	2	0	3	2	4	1
1217:	4	1	0	2	1	1	0	2
1225:	0	3	0	2	2	0	2	0
1233:	1	2	1	2	2	2	2	1
1241:	4	2	2	2	1	0	1	3
1249:	1	1	2	3	0	3	2	0
1257:	1	1	4	2	1	2	0	3
1265:	2	2	5	6	0	3	1	2
1273:	0	1	3	0	1	2	1	2
1281:	1	3	0	2	1	0	1	3
1289:	2	1	4	1	1	2	3	2
1297:	3	2	0	3	2	3	2	0
1305:	0	7	2	0	2	3	0	1
1313:	2	1	3	0	0	2	1	1
1321:	3	3	2	4	0	3	0	2
1329:	2	0	1	0	3	4	2	1
1337:	0	1	1	1	0	0	5	2
1345:	2	1	2	3	0	0	1	2
1353:	3	1	1	1	0	1	1	4
1361:	2	1	2	0	3	5	1	0
1369:	2	1	2	4	1	5	2	0
1377:	2	3	1	0	3	1	1	0
1385:	3	1	2	1	1	1	0	0

1393:	0	2	3	1	0	1	1	2
1401:	2	1	2	1	1	1	1	2
1409:	1	8	3	3	0	0	2	1
1417:	2	4	2	3	2	3	0	3
1425:	0	1	0	1	3	2	0	1
1433:	1	2	2	0	1	1	1	2
1441:	0	0	1	0	3	2	1	2
1449:	2	1	0	1	1	1	0	1
1457:	0	2	2	0	4	12	3	2
1465:	2	2	1	0	1	1	2	2
1473:	1	0	2	1	1	1	1	0
1481:	2	1	0	0	0	0	1	1
1489:	0	0	1	1	0	2	2	0
1497:	1	0	1	0	1	2	1	1
1505:	0	1	1	1	0	3	1	3
1513:	3	0	0	0	1	1	2	1
1521:	1	3	3	3	1	1	1	2
1529:	1	1	1	1	1	1	1	6
1537:	2	0	1	0	2	1	0	1
1545:	3	1	0	4	1	0	4	0
1553:	2	4	2	1	0	0	1	1
1561:	1	1	1	1	1	0	1	0
1569:	0	1	1	0	2	0	2	1
1577:	2	0	0	0	0	2	1	0
1585:	1	2	1	0	0	1	2	1
1593:	2	3	0	1	1	0	1	1
1601:	1	0	2	0	0	1	2	1
1609:	2	0	1	3	1	1	1	2
1617:	2	1	2	1	0	1	2	2
1625:	0	0	1	1	0	2	1	1
1633:	0	0	0	4	0	1	1	1
1641:	2	2	2	0	0	0	1	0
1649:	1	1	2	0	0	0	0	0
1657:	0	1	4	2	0	1	0	1
1665:	1	2	1	0	0	0	2	1
1673:	0	0	1	0	0	0	2	1
1681:	0	0	1	1	0	1	0	1
1689:	1	0	0	1	1	1	4	0
1697:	2	0	2	1	1	2	2	1
1705:	1	0	1	0	0	1	1	1
1713:	2	1	1	0	0	2	1	0
1721:	2	2	0	1	1	3	1	1
1729:	0	2	0	2	2	2	2	2
1737:	1	1	3	0	1	3	1	0
1745:	1	0	1	1	0	2	0	0
1753:	2	0	1	0	0	0	0	1
1761:	0	2	2	3	6	4	0	0
1769:	1	2	0	0	1	2	0	3
1777:	1	0	0	0	1	0	1	0
1785:	2	0	0	1	0	2	0	0
1793:	3	0	0	0	1	1	0	0
1801:	0	1	1	0	0	0	1	1
1809:	1	0	0	1	1	0	1	2
1817:	2	0	1	0	2	0	0	3
1825:	0	0	0	2	1	0	1	1
1833:	0	3	0	0	2	1	1	0
1841:	2	0	0	0	0	0	1	0
1849:	3	1	1	0	0	0	0	0
1857:	3	0	0	1	2	0	1	0
1865:	0	1	1	0	2	0	1	2

1873:	0	2	0	0	1	2	0	2
1881:	0	0	0	0	1	2	2	1
1889:	0	2	2	1	0	4	0	1
1897:	1	2	1	0	0	0	1	1
1905:	1	0	1	1	1	0	1	0
1913:	1	2	1	0	0	1	0	0
1921:	1	0	2	2	1	0	2	1
1929:	1	0	0	1	2	1	0	1
1937:	0	0	0	0	1	1	1	3
1945:	1	1	1	1	1	1	0	0
1953:	1	0	0	0	0	0	0	2
1961:	0	2	1	0	0	0	0	1
1969:	0	0	0	1	1	1	1	0
1977:	0	0	0	0	1	0	1	1
1985:	0	1	1	1	2	0	0	0
1993:	0	1	0	0	0	0	0	0
2001:	2	1	0	0	2	3	1	1
2009:	0	0	1	0	0	1	2	1
2017:	2	0	0	0	0	1	1	2
2025:	0	0	1	0	0	1	0	0
2033:	1	0	0	1	0	0	0	0
2041:	1	1	0	0	0	2	0	0
2049:	1	0	2	2	2	0	0	1
2057:	3	0	0	2	0	0	0	1
2065:	0	0	0	0	2	1	3	0
2073:	1	1	0	0	0	0	0	0
2081:	0	0	1	1	1	1	1	0
2089:	0	0	0	0	0	1	0	1
2097:	0	2	0	1	0	1	3	2
2105:	0	1	0	0	0	1	0	0
2113:	0	1	0	0	0	2	1	0
2121:	1	0	0	1	1	0	0	1
2129:	1	0	2	1	2	0	1	0
2137:	0	1	1	1	2	0	0	1
2145:	0	0	0	1	1	0	0	0
2153:	2	0	0	1	0	0	1	0
2161:	0	0	2	5	0	2	0	0
2169:	0	2	1	1	0	1	1	1
2177:	0	1	0	1	1	0	1	0
2185:	0	0	1	0	0	1	0	0
2193:	2	1	0	0	1	2	0	1
2201:	0	0	1	1	1	2	2	3
2209:	1	0	1	0	0	1	1	1
2217:	2	0	0	0	1	1	0	0
2225:	3	0	1	0	0	0	1	0
2233:	2	0	3	2	0	0	0	3
2241:	0	1	1	0	1	0	1	0
2249:	0	0	0	3	0	2	0	0
2257:	0	1	0	1	0	2	1	1
2265:	0	0	0	0	1	0	0	0
2273:	3	0	1	1	0	1	1	2
2281:	1	0	0	0	3	0	0	0
2289:	0	2	1	0	0	0	0	0
2297:	2	0	1	0	0	1	0	1
2305:	0	0	0	1	0	0	2	0
2313:	1	2	0	2	1	2	1	1
2321:	0	0	1	0	2	0	2	0
2329:	0	0	1	0	0	1	1	0
2337:	0	0	0	2	0	0	0	0
2345:	2	1	1	3	0	0	0	0

2353:	1	0	3	0	0	0	0	0
2361:	1	0	2	0	2	0	0	0
2369:	0	1	2	1	0	1	0	2
2377:	0	1	0	0	1	0	0	1
2385:	1	0	0	0	0	0	0	0
2393:	1	0	2	0	1	1	0	0
2401:	2	2	0	1	0	0	1	1
2409:	0	1	1	2	0	1	0	1
2417:	0	0	0	0	2	0	0	0
2425:	1	0	1	2	0	0	1	0
2433:	0	1	0	0	0	1	0	1
2441:	1	2	1	0	0	1	0	0
2449:	0	1	1	0	1	1	0	0
2457:	0	0	0	1	1	1	0	0
2465:	2	2	0	0	1	1	0	0
2473:	0	0	4	0	0	0	1	0
2481:	0	0	0	1	0	0	0	2
2489:	2	0	2	0	0	0	1	0
2497:	1	0	0	0	3	0	0	0
2505:	0	0	0	0	0	1	0	1
2513:	1	1	0	4	0	0	0	0
2521:	0	1	1	1	0	0	0	1
2529:	0	1	1	0	0	0	1	0
2537:	0	0	1	4	1	0	0	1
2545:	0	1	0	1	0	0	1	0
2553:	1	1	0	0	0	0	0	1
2561:	0	0	0	0	0	2	0	0
2569:	0	0	1	1	1	0	0	1
2577:	1	0	0	1	0	0	1	0
2585:	1	0	0	0	2	0	0	0
2593:	0	1	1	0	0	1	0	0
2601:	0	0	2	1	2	0	1	0
2609:	1	0	0	0	0	3	1	3
2617:	1	1	1	2	1	0	0	0
2625:	0	1	0	0	1	0	0	2
2633:	0	1	1	0	0	0	1	1
2641:	1	1	0	1	0	0	0	0
2649:	1	0	1	0	1	1	1	0
2657:	0	0	1	0	0	1	0	0
2665:	0	3	1	0	0	0	0	0
2673:	1	0	1	0	0	0	0	0
2681:	0	0	2	1	0	0	0	1
2689:	2	1	1	0	0	0	0	1
2697:	0	0	0	0	1	0	1	0
2705:	1	2	1	1	1	1	1	0
2713:	0	0	0	0	1	3	0	0
2721:	0	1	0	0	0	0	2	0
2729:	1	0	0	1	0	0	2	1
2737:	0	0	0	0	1	0	1	1
2745:	1	1	1	0	0	1	1	1
2753:	0	1	1	1	0	0	1	1
2761:	0	0	0	0	0	1	0	0
2769:	1	0	0	0	1	0	0	0
2777:	1	1	0	0	0	1	0	0
2785:	0	1	0	0	0	0	0	0
2793:	1	1	0	0	1	0	1	1
2801:	1	1	0	1	2	0	0	0
2809:	1	0	0	0	0	0	0	1
2817:	0	0	0	0	0	0	1	1
2825:	0	0	0	1	0	1	1	1

2833:	0	0	1	1	0	0	0	1
2841:	0	0	0	0	0	0	0	1
2849:	0	0	1	0	1	0	0	1
2857:	0	2	0	0	0	1	2	1
2865:	0	0	0	1	0	2	1	1
2873:	0	0	0	0	1	1	0	0
2881:	0	0	0	1	1	0	0	0
2889:	0	0	0	1	0	0	0	0
2897:	0	1	0	0	0	0	0	0
2905:	0	0	0	0	0	0	0	1
2913:	0	0	0	0	2	0	0	1
2921:	0	2	1	0	0	1	0	0
2929:	0	1	1	2	0	0	0	2
2937:	1	0	0	0	0	1	0	1
2945:	0	0	2	0	0	1	0	2
2953:	0	0	0	0	0	0	1	0
2961:	0	0	0	0	0	1	0	0
2969:	0	1	0	0	0	1	0	1
2977:	0	1	0	0	0	1	1	0
2985:	1	0	1	0	0	0	0	0
2993:	0	0	0	0	1	0	0	0
3001:	1	2	1	0	2	0	0	0
3009:	1	0	2	1	0	0	0	0
3017:	0	2	0	0	0	0	1	1
3025:	2	2	2	0	0	0	1	0
3033:	1	2	0	1	0	1	0	0
3041:	0	0	0	0	1	0	0	0
3049:	0	0	0	0	1	0	0	0
3057:	0	0	0	1	0	0	0	2
3065:	0	0	0	0	0	0	0	0
3073:	0	0	0	0	0	0	1	1
3081:	0	0	1	1	0	0	1	0
3089:	1	1	0	1	1	0	0	0
3097:	0	0	2	0	0	0	0	0
3105:	0	0	0	0	0	0	0	0
3113:	0	0	0	0	1	0	0	0
3121:	0	0	2	1	0	1	1	0
3129:	0	0	0	0	0	0	2	1
3137:	2	2	0	0	0	0	0	0
3145:	0	0	0	0	1	0	0	1
3153:	0	0	0	1	0	0	2	0
3161:	0	0	0	0	0	0	1	0
3169:	0	1	0	0	0	0	0	0
3177:	0	1	1	0	0	0	1	0
3185:	0	1	1	0	0	0	0	0
3193:	1	0	2	0	0	0	0	0
3201:	1	1	0	0	0	0	0	0
3209:	1	0	0	0	0	0	0	1
3217:	0	0	0	0	1	1	1	0
3225:	2	0	0	0	1	0	0	0
3233:	2	0	0	0	1	0	0	1
3241:	0	1	1	1	0	2	0	0
3249:	1	0	0	0	0	0	0	1
3257:	2	0	1	1	0	1	0	0
3265:	0	1	0	0	0	1	0	1
3273:	2	0	0	0	0	0	0	0
3281:	0	0	1	0	0	0	0	0
3289:	1	0	1	0	1	0	0	0
3297:	1	0	0	1	0	0	0	0
3305:	0	0	0	0	0	1	0	0

3313:	2	0	0	0	0	0	0	0	0
3321:	0	0	0	0	2	0	0	0	0
3329:	0	1	0	0	0	1	0	0	1
3337:	1	0	0	2	0	1	0	0	0
3345:	0	1	1	1	0	0	1	0	0
3353:	0	2	1	0	0	1	0	0	0
3361:	0	1	0	1	0	0	0	0	0
3369:	0	1	0	0	0	0	0	0	0
3377:	0	1	0	0	1	0	0	0	0
3385:	0	1	1	0	0	0	0	0	0
3393:	0	0	0	1	0	0	1	0	1
3401:	0	0	1	1	0	0	0	0	0
3409:	2	0	0	0	0	0	1	0	1
3417:	0	0	0	0	0	0	0	0	0
3425:	2	0	0	0	0	1	2	0	1
3433:	0	0	1	0	0	0	0	0	0
3441:	0	0	0	2	0	0	1	0	0
3449:	0	0	0	0	0	0	1	0	1
3457:	0	0	0	0	0	0	2	0	0
3465:	0	0	0	0	0	0	0	0	0
3473:	0	0	0	1	1	0	0	0	0
3481:	0	0	0	0	0	0	1	0	1
3489:	0	0	1	0	0	1	0	0	0
3497:	0	0	0	0	0	0	1	0	0
3505:	0	0	0	0	1	1	0	0	0
3513:	0	0	0	1	0	0	0	0	0
3521:	1	0	0	0	0	0	0	0	1
3529:	1	0	2	0	1	1	0	0	0
3537:	1	0	0	0	1	0	0	0	0
3545:	0	0	0	0	1	0	0	0	0
3553:	0	0	0	0	0	0	0	0	0
3561:	0	1	1	0	0	0	1	0	0
3569:	0	0	0	0	0	1	0	0	0
3577:	0	1	0	0	0	0	1	0	1
3585:	0	0	1	0	0	0	0	0	1
3593:	1	0	1	0	1	0	1	0	1
3601:	0	0	0	0	0	0	1	0	1
3609:	0	0	0	0	0	0	0	0	0
3617:	0	0	0	0	0	0	1	0	0
3625:	1	0	0	0	2	0	0	0	1
3633:	1	0	0	0	1	0	0	0	1
3641:	0	1	1	0	0	0	0	0	0
3649:	0	1	0	0	0	0	0	0	1
3657:	2	0	0	0	0	0	1	0	0
3665:	0	0	1	0	2	1	0	0	0
3673:	0	2	0	0	0	1	0	0	0
3681:	0	0	0	0	0	1	0	0	0
3689:	0	0	0	0	1	0	0	0	0
3697:	0	0	1	0	0	0	0	0	1
3705:	0	0	0	1	0	0	0	0	1
3713:	0	0	0	0	0	0	0	0	0
3721:	0	0	0	0	1	0	0	0	0
3729:	0	2	0	0	0	0	0	0	0
3737:	1	0	1	0	0	0	0	0	0
3745:	0	1	0	1	1	0	1	0	0
3753:	1	0	0	0	0	0	1	0	0
3761:	0	1	0	0	0	1	0	0	0
3769:	2	0	0	0	0	0	1	0	0
3777:	0	0	0	1	0	0	0	0	0
3785:	0	0	1	0	0	0	0	0	0

3793:	0	0	0	0	0	0	0	0
3801:	0	0	1	1	0	0	0	0
3809:	0	0	0	0	1	0	0	0
3817:	0	0	0	0	0	0	0	0
3825:	0	1	1	0	0	0	0	0
3833:	1	0	1	0	0	0	0	0
3841:	0	0	0	0	0	1	0	1
3849:	0	0	0	0	0	1	0	1
3857:	0	0	0	1	0	1	0	0
3865:	1	1	0	0	0	1	0	1
3873:	0	0	0	0	1	0	1	0
3881:	0	0	0	0	0	0	0	0
3889:	0	0	0	2	0	0	0	0
3897:	0	0	0	0	0	0	0	0
3905:	0	0	0	0	0	1	1	0
3913:	1	0	0	1	1	0	0	0
3921:	1	0	0	0	0	0	1	0
3929:	0	0	1	1	0	2	0	0
3937:	0	1	0	0	0	1	0	1
3945:	1	0	0	0	0	0	2	0
3953:	1	0	0	0	0	0	0	0
3961:	0	0	1	1	0	0	0	0
3969:	0	0	1	0	0	0	0	0
3977:	0	0	0	0	0	0	0	0
3985:	0	0	0	0	1	0	0	0
3993:	0	1	1	0	0	1	0	1
4001:	0	0	0	0	0	0	0	0
4009:	0	0	1	0	0	1	0	2
4017:	0	0	0	0	0	1	0	0
4025:	0	0	0	0	0	0	2	0
4033:	1	0	0	0	0	0	1	0
4041:	0	0	0	0	0	0	0	0
4049:	0	0	0	0	0	0	0	0
4057:	0	0	0	0	2	0	0	0
4065:	2	0	0	0	0	0	0	1
4073:	0	1	0	0	0	0	0	0
4081:	0	0	0	0	0	0	0	0
4089:	0	1	0	0	0	1	0	1

QA filename : DKA100:[GAMMA.SCUSR.QA]QCC_GE3_GAW11.QAF;1

Sample ID : Calib Check Sample quantity : 0.500 LITER
Sample date : 1-JAN-2011 00:00:00 Acquisition date : 25-NOV-2011 04:30:09
Elapsed live time: 0 00:15:00.00 Elapsed real time: 0 00:16:56.20

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*Peak Centroid 59.54 keV	58	61	60	
*Peak Centroid 661.65 keV	660	663	662	
*Peak Centroid 1173.22 keV	1172	1175	1174	
*Peak Centroid 1332.49 keV	1331	1334	1333	
*Peak Centroid 1836.01 keV	1835	1838	1837	
*Peak FWHM Am-241 59.54 keV	0.5	3.0	1.3	
*Peak FWHM Cs-137 661.65 keV	0.5	3.0	1.7	
*Peak FWHM Co-60 1173.22 keV	0.5	3.0	2.0	
*Peak FWHM Co-60 1332.49 keV	0.5	3.0	2.1	
*Peak FWHM Y-88 1836.01 keV	0.5	3.0	2.6	
*DC Activity Am-241 59.54 keV	2.65E+05	3.58E+05	2.87E+05	
*DC Activity Cs-137 661.65 keV	1.00E+05	1.36E+05	1.18E+05	
*DC Activity Co-60 1173.22 keV	1.65E+05	2.23E+05	1.99E+05	
*DC Activity Co-60 1332.49 keV	1.65E+05	2.23E+05	1.97E+05	
*DC Activity Y-88 1836.01 keV	3.46E+05	4.69E+05	4.12E+05	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: JCS Approval Date: 11 / 25 / 11

QA filename : DKA100:[GAMMA.SCUSR.QA]QCC_GE4_GAW11.QAF;1

Sample ID : Calib Check Sample quantity : 0.500 LITER
Sample date : 1-JAN-2011 00:00:00 Acquisition date : 25-NOV-2011 04:49:12
Elapsed live time: 0 00:15:00.00 Elapsed real time: 0 00:15:55.78

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*Peak Centroid 59.54 keV	58	61	59	
*Peak Centroid 661.65 keV	660	663	661	
*Peak Centroid 1173.22 keV	1172	1175	1173	
*Peak Centroid 1332.49 keV	1331	1334	1333	
*Peak Centroid 1836.01 keV	1835	1838	1837	
*Peak FWHM Am-241 59.54 keV	0.5	3.0	2.0	
*Peak FWHM Cs-137 661.65 keV	0.5	3.0	2.2	
*Peak FWHM Co-60 1173.22 keV	0.5	3.0	2.4	
*Peak FWHM Co-60 1332.49 keV	0.5	3.0	2.5	
*Peak FWHM Y-88 1836.01 keV	0.5	3.0	2.8	
*DC Activity Am-241 59.54 keV	2.65E+05	3.58E+05	3.14E+05	
*DC Activity Cs-137 661.65 keV	1.00E+05	1.36E+05	1.19E+05	
*DC Activity Co-60 1173.22 keV	1.65E+05	2.23E+05	1.91E+05	
*DC Activity Co-60 1332.49 keV	1.65E+05	2.23E+05	1.97E+05	
*DC Activity Y-88 1836.01 keV	3.46E+05	4.69E+05	4.06E+05	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: JCS Approval Date: 11 / 25 / 11

QA filename : DKA100:[GAMMA.SCUSR.QA]QCB_GE3.QAF;1

Sample ID : Bkgrnd Check Sample quantity : 1.00 EACH
Sample date : 25-NOV-2011 05:25:26 Acquisition date : 25-NOV-2011 05:25:26
Elapsed live time: 0 00:15:00.00 Elapsed real time: 0 00:15:04.18

Out-of-range Test: N-SIGMA

Parameter Description	Value	Deviation	Flag
[Mean+/-Stdev]			
Background Counts [2.96E+03+/-4.23E+04]	1.90E+03	-0.03	
*Background Rate [3.3+/-47]	2.1	-0.03	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: ICB Approval Date: 11 / 25 / 11

QA filename : DKA100: [GAMMA.SCUSR.QA] QCB_GE4.QAF;1

Sample ID : Bkgrnd Check Sample quantity : 1.00 EACH
Sample date : 25-NOV-2011 04:30:33 Acquisition date : 25-NOV-2011 04:30:33
Elapsed live time: 0 00:15:00.00 Elapsed real time: 0 00:15:00.18

Out-of-range Test: N-SIGMA

Parameter Description	Value	Deviation	Flag
[Mean+/-Stdev]			
Background Counts [1424+/-47]	1460	0.76	
Background Rate [1.583+/-0.052]	1.622	0.76	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: 143 Approval Date: 11 / 25 / 11

QA filename : DKA100:[GAMMA.SCUSR.QA]QCB_GE3.QAF;1

Sample ID : Bkgrnd Check Sample quantity : 1.00 EACH
Sample date : 26-NOV-2011 05:03:39 Acquisition date : 26-NOV-2011 05:03:39
Elapsed live time: 0 00:15:00.00 Elapsed real time: 0 00:15:04.11

Out-of-range Test: N-SIGMA

Parameter Description	Value	Deviation	Flag
[Mean+/-Stdev]			
Background Counts [2.96E+03+/-4.23E+04]	1.61E+03	-0.03	
*Background Rate [3.3+/-47]	1.8	-0.03	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: ICB Approval Date: 11 / 26 / 11

QA filename : DKA100:[GAMMA.SCUSR.QA]QCB_GE4.QAF;1

Sample ID : Bkgrnd Check Sample quantity : 1.00 EACH
Sample date : 26-NOV-2011 04:27:06 Acquisition date : 26-NOV-2011 04:27:06
Elapsed live time: 0 00:15:00.00 Elapsed real time: 0 00:15:00.17

Out-of-range Test: N-SIGMA

Parameter Description	Value	Deviation	Flag
[Mean+/-Stdev]			
Background Counts	1416	-0.18	
[1424+/-47]			
Background Rate	1.573	-0.18	
[1.583+/-0.052]			

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: ICB Approval Date: 11 / 26 / 11

QA filename : DKA100: [GAMMA.SCUSR.QA]QCC_GE3_GAW11.QAF;1

Sample ID : Calib Check Sample quantity : 0.500 LITER
Sample date : 1-JAN-2011 00:00:00 Acquisition date : 26-NOV-2011 04:26:43
Elapsed live time: 0 00:15:00.00 Elapsed real time: 0 00:16:55.25

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*Peak Centroid 59.54 keV	58	61	60	
*Peak Centroid 661.65 keV	660	663	662	
*Peak Centroid 1173.22 keV	1172	1175	1174	
*Peak Centroid 1332.49 keV	1331	1334	1333	
*Peak Centroid 1836.01 keV	1835	1838	1837	
*Peak FWHM Am-241 59.54 keV	0.5	3.0	1.3	
*Peak FWHM Cs-137 661.65 keV	0.5	3.0	1.7	
*Peak FWHM Co-60 1173.22 keV	0.5	3.0	1.9	
*Peak FWHM Co-60 1332.49 keV	0.5	3.0	2.1	
*Peak FWHM Y-88 1836.01 keV	0.5	3.0	2.5	
*DC Activity Am-241 59.54 keV	2.65E+05	3.58E+05	2.97E+05	
*DC Activity Cs-137 661.65 keV	1.00E+05	1.36E+05	1.18E+05	
*DC Activity Co-60 1173.22 keV	1.65E+05	2.23E+05	1.95E+05	
*DC Activity Co-60 1332.49 keV	1.65E+05	2.23E+05	1.95E+05	
*DC Activity Y-88 1836.01 keV	3.46E+05	4.69E+05	4.09E+05	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: _____

KCB

Approval Date: 11 / 26 / 11

QA filename : DKA100:[GAMMA.SCUSR.QA]QCC_GE4_GAW11.QAF;1

Sample ID : Calib Check Sample quantity : 0.500 LITER
Sample date : 1-JAN-2011 00:00:00 Acquisition date : 26-NOV-2011 04:45:51
Elapsed live time: 0 00:15:00.00 Elapsed real time: 0 00:15:56.33

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*Peak Centroid 59.54 keV	58	61	59	
*Peak Centroid 661.65 keV	660	663	661	
*Peak Centroid 1173.22 keV	1172	1175	1173	
*Peak Centroid 1332.49 keV	1331	1334	1333	
*Peak Centroid 1836.01 keV	1835	1838	1837	
*Peak FWHM Am-241 59.54 keV	0.5	3.0	2.2	
*Peak FWHM Cs-137 661.65 keV	0.5	3.0	2.2	
*Peak FWHM Co-60 1173.22 keV	0.5	3.0	2.4	
*Peak FWHM Co-60 1332.49 keV	0.5	3.0	2.5	
*Peak FWHM Y-88 1836.01 keV	0.5	3.0	2.7	
*DC Activity Am-241 59.54 keV	2.65E+05	3.58E+05	3.07E+05	
*DC Activity Cs-137 661.65 keV	1.00E+05	1.36E+05	1.20E+05	
*DC Activity Co-60 1173.22 keV	1.65E+05	2.23E+05	1.90E+05	
*DC Activity Co-60 1332.49 keV	1.65E+05	2.23E+05	1.96E+05	
*DC Activity Y-88 1836.01 keV	3.46E+05	4.69E+05	4.08E+05	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: ICB Approval Date: 11 / 26 / 11

WESTON SOLUTIONS, INC.

Section 12 Uranium Mine

**STANDARD LEVEL IV
REPORT OF ANALYSIS**

WORK ORDER #11-11068-OR

December 29, 2011

**EBERLINE ANALYTICAL/OAK RIDGE LABORATORY
OAK RIDGE, TN**

TABLE OF CONTENTS

SECTION	DESCRIPTION	PAGE
I	Chain of Custody	0004
II	Sample Acknowledgement	0007
III	Case Narrative	0010
IV	Analytical Results Summary	0013
V	Analytical Standard	0020
VI	Quality Control Sample Results Summary	0024
VII	Laboratory Technician's Notes & Run Logs	0027
VIII	Analytical Data (Gamma Spectroscopy)	0032
	Last Page Number	0382



**Eberline Services – Oak Ridge Laboratory
LABORATORY DATA SUPPORT CHECKLIST**

MP-001-3

Eberline Services Work Order # 11-11068

The checklist items listed below are to be initialed by appropriate staff upon completion/verification.

Date for Partial	Initials	Date	Initials	Checklist Items
		11-11-11	Jwm	Sample Log-In
		12/12/11	kw	Data Compilation
		12-13-11	mlt	First Technical Data Review
		12/14/11	M	Second Technical Data Review
		12/23/11	[Signature]	Data Entry/Electronic Deliverable
		12/23/11	[Signature]	Case Narrative
		12/29/11	RBS	Electronic Deliverable Proof
		12/28/11	[Signature]	Samples Analyzed within Holding Time Yes? <input checked="" type="checkbox"/> No? <input type="checkbox"/>
		12/28/11	[Signature]	QA/QC Review
				Client in Possession of Data Electronic or Hard Copy
				Invoiced by Laboratory

Technical/Clerical Corrections, Signatures Needed, Problems, Etc	Date/Initials

Date package approved by: [Signature] Laboratory Manager

12/29/11 Date

Copy No. _____



SECTION I
CHAIN OF CUSTODY

USEPA

Date Shipped: 11/10/2011

Carrier Name: FedEx

Airbill No: 795392961266

11-11068

CHAIN OF CUSTODY RECORD

Section 12 Uranium Mine

Contact Name: Kristie Warr

Contact Phone: 713-985-6636

No: TO0035110902-111110-0002

Cooler #: 1

Lab: Eberline Services

Lab Phone: 865-481-0683

Lab #	Sample #	Analyses	Matrix	Collected	Sample Time	Container	MS/MSD	Samp_Concentration
	ALSW-01-111107	Isotopic U, Isotopic Th (HOLD)	Surface Water	11/7/2011	15:00	500mL Polyethylene	N	<20,000 cpm
	ALSW-01-111107	Gamma Spectroscopy	Surface Water	11/7/2011	15:00	4 L cubitainer	N	<20,000 cpm
4	BKGD-E-31-111107	Gamma Spectroscopy	Soil	11/7/2011	15:06	16 oz jar	N	41,447 cpm
5	BKGD-N-31-111107	Gamma Spectroscopy	Soil	11/7/2011	15:18	16 oz jar	N	18,444 cpm
6	BKGD-S-31-111107	Gamma Spectroscopy	Soil	11/7/2011	15:45	16 oz jar	N	15,785 cpm
7	BKGD-W-31-111107	Gamma Spectroscopy	Soil	11/7/2011	15:25	16 oz jar	N	17,800 cpm
8	S12-12-31-111107	Gamma Spectroscopy	Soil	11/7/2011	14:20	16 oz jar	N	74,861 cpm
9	S12-14-31-111107	Gamma Spectroscopy	Soil	11/7/2011	14:25	16 oz jar	N	144,468 cpm
10	S12-22-31-111107	Gamma Spectroscopy	Soil	11/7/2011	14:40	16 oz jar	N	136,438 cpm
11	S12-33-31-111107	Gamma Spectroscopy	Soil	11/7/2011	14:14	16 oz jar	N	231,451 cpm
12	S12-34-31-111107	Gamma Spectroscopy	Soil	11/7/2011	14:12	16 oz jar	N	241,022 cpm
13	S12-34-32-111107	Gamma Spectroscopy	Soil	11/7/2011	14:12	16 oz jar	N	241,022 cpm
14	S12-35-31-111107	Gamma Spectroscopy	Soil	11/7/2011	14:10	16 oz jar	N	203,006 cpm
15	S12-52-31-111107	Gamma Spectroscopy	Soil	11/7/2011	14:56	16 oz jar	N	137,567 cpm
16	S12-56-31-111107	Gamma Spectroscopy	Soil	11/7/2011	14:49	16 oz jar	N	106,454 cpm
17	S12-64-31-111107	Gamma Spectroscopy	Soil	11/7/2011	14:52	16 oz jar	N	38,998 cpm

Special Instructions: Level IV Deliverable, Standard TAT. HOLD Alpha Spec for Isotopic U and Th ASTM 3972-90M until Gamma Spec results are aquired.	SAMPLES TRANSFERRED FROM
	CHAIN OF CUSTODY #

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
16/samples		11/9/11	Jessica McKamy	11-11-11	0900						

REC'D NOV 11 2011

000000



Internal Chain of Custody

Work Order #	11-11068
Lab Deadline	12/5/2011
Analysis	Gamma - Level 4
Sample Matrix	Soil/Solid

Comments	Sample Fraction	HP 210 / 270 Detector Activity	Storage Location	
21 day ingrowth: Report Ac228, Bi214, K40, Pa234m, Pb212/214, Th234, Tl208, Ra226 from Bi214 & any positives.	04	26	K1.3	
	05	34	K1.3	
	06	35	K1.3	
	07	44	K1.3	
	08	72	K1.3	
	09	188	K1.3	
	10	132	K1.3	
	11	273	K1.3	
	12	298	K1.3	
	13	305	K1.3	
	14	407	K1.3	
	15	126	K1.3	
	16	108	K1.3	
	17	47	K1.3	

	Location (circle one)					Initials	Date
Received by	<u>Sample Storage</u>	Rough Prep	Prep	Separations	Count Room	<i>Henry Selig</i>	11-14-11
Relinquished by	Sample Storage	<u>Rough Prep</u>	Prep	Separations	Count Room	<i>Henry Selig</i>	11-15-11
Received by	Sample Storage	Rough Prep	Prep	Separations	Count Room	<i>AG</i>	11-15-11
Relinquished by	Sample Storage	Rough Prep	Prep	Separations	Count Room	<i>AG</i>	12/1/11
Received by	<u>Sample Storage</u>	Rough Prep	Prep	Separations	Count Room		
Relinquished by	Sample Storage	Rough Prep	Prep	Separations	Count Room		
Received by	Sample Storage	Rough Prep	Prep	Separations	Count Room		
Relinquished by	Sample Storage	Rough Prep	Prep	Separations	Count Room		
Received by	Sample Storage	Rough Prep	Prep	Separations	Count Room		
Relinquished by	Sample Storage	Rough Prep	Prep	Separations	Count Room		
Received by	Sample Storage	Rough Prep	Prep	Separations	Count Room		
Relinquished by	Sample Storage	Rough Prep	Prep	Separations	Count Room		

SECTION II
SAMPLE ACKNOWLEDGEMENT



Eberline Services – Oak Ridge Laboratory

SAMPLE RECEIPT CHECKLIST
MP-001-2

WORK ORDER # 11-11068

SAMPLE MATRIX/MATRICES:

(CIRCLE ONE OR BOTH)

AQUEOUS

NON-AQUEOUS

(CIRCLE EITHER YES, NO, OR N/A)

WERE SAMPLES:

Received in good condition?	<u>Y</u>	N	
If aqueous, properly preserved	Y	N	<u>N/A</u>

WERE CHAIN OF CUSTODY SEALS:

Present on outside of package?	<u>Y</u>	N
Unbroken on outside of package?	<u>Y</u>	N
Present on samples?	<u>Y</u>	N
Unbroken on samples?	<u>Y</u>	N
Was chain of custody present upon sample receipt?	<u>Y</u>	N

IF THE RESPONSE TO ANY OF THE ABOVE IS NO, A DISCREPANT SAMPLE RECEIPT REPORT (DSR) HAS BEEN ISSUED.

REMARKS: (14) .500 mL jars of soil.

SIGNATURE: Justin McNamee

DATE: 11-11-11

SECTION III
CASE NARRATIVE



EBERLINE ANALYTICAL CORPORATION
601 SCARBORO ROAD
OAK RIDGE, TENNESSEE 37830
PHONE (865) 481-0683
FAX (865) 483-4621

EBS-OR-33179

December 29, 2011

Kristie Warr
Weston Solutions, Inc.
5599 San Felipe Suite 700
Houston, TX 77056

CASE NARRATIVE
Work Order # 11-11068-OR

SAMPLE RECEIPT

This work order contains fourteen soil samples received 11/11/2011. These samples were analyzed by Gamma Spectroscopy.

<u>CLIENT ID</u>	<u>LAB ID</u>	<u>CLIENT ID</u>	<u>LAB ID</u>
BKGD-E-31-111107	11-11068-04	S12-33-31-111107	11-11068-11
BKGD-N-31-111107	11-11068-05	S12-34-31-111107	11-11068-12
BKGD-S-31-111107	11-11068-06	S12-34-32-111107	11-11068-13
BKGD-W-31-111107	11-11068-07	S12-35-31-111107	11-11068-14
S12-12-31-111107	11-11068-08	S12-52-31-111107	11-11068-15
S12-14-31-111107	11-11068-09	S12-56-31-111107	11-11068-16
S12-22-31-111107	11-11068-10	S12-64-31-111107	11-11068-17

ANALYTICAL METHODS

Gamma Spectroscopy was performed using Method LANL ER-130 Modified.

ANALYTICAL RESULTS

Combined Standard Uncertainty is reported at 2-sigma value.

GAMMA SPECTROSCOPY

Samples were dried, homogenized and placed into appropriate gamma spectroscopy geometry containers. Samples were then sealed for 21 days to allow for ingrowth of Radon-222 and progeny. Samples were counted on High Purity Germanium (HPGe) gamma ray detectors. Energy lines from Lead-214 and Bismuth-214 were analyzed for determinations of Radium-226 activity.

Samples demonstrated acceptable results for all radionuclides as reported. The method blank demonstrated acceptable results for all radionuclides as reported. Results for the Actinium-228, Bismuth-

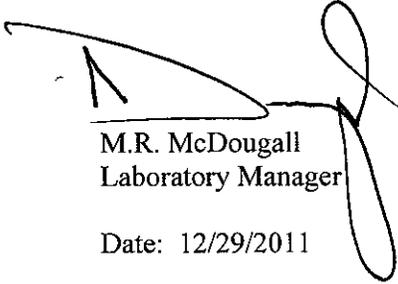
ANALYTICAL RESULTS CONTINUED

GAMMA SPECTROSCOPY CONTINUED

214 and Potassium-40 replicate demonstrated an acceptable relative percent difference and normalized difference. Results for the Cobalt-60 and Cesium-137 laboratory control sample demonstrated an acceptable percent recovery.

CERTIFICATION OF ACCURACY

I certify that this data report is in compliance with the terms and conditions of the Purchase Order, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the cognizant project manager or his/her designee to be accurate as verified by the following signature.



M.R. McDougall
Laboratory Manager

Date: 12/29/2011

SECTION IV
ANALYTICAL RESULTS SUMMARY

<h1>Eberline Analytical</h1> <h2>Final Report of Analysis</h2>			Report To:					Work Order Details:						
			Kristie Warr Weston Solutions, Inc. 5599 San Felipe Suite 700 Houston, TX 77056					SDG:	11-11068					
								Purchase Order:	0070138					
								Analysis Category:	ENVIRONMENTAL					
					Sample Matrix:					SO				
Lab ID	Sample Type	Client ID	Sample Date	Receipt Date	Analysis Date	Batch ID	Analyte	Method	Result	CU	CSU	MDA	Report Units	
11-11068-01	LCS	KNOWN	11/11/11 00:00	11/11/2011	12/11/2011	11-11068	Cobalt-60	LANL ER-130 Modified	1.32E+02	5.20E+00			pCi/g	
11-11068-01	LCS	KNOWN	11/11/11 00:00	11/11/2011	12/11/2011	11-11068	Cesium-137	LANL ER-130 Modified	8.25E+01	3.30E+00			pCi/g	
11-11068-01	LCS	SPIKE	11/11/11 00:00	11/11/2011	12/11/2011	11-11068	Cobalt-60	LANL ER-130 Modified	1.35E+02	1.02E+01	1.23E+01	1.36E+00	pCi/g	
11-11068-01	LCS	SPIKE	11/11/11 00:00	11/11/2011	12/11/2011	11-11068	Cesium-137	LANL ER-130 Modified	8.57E+01	8.86E+00	9.89E+00	1.10E+00	pCi/g	
11-11068-02	MBL	BLANK	11/11/11 00:00	11/11/2011	12/11/2011	11-11068	Actinium-228	LANL ER-130 Modified	1.78E-02	5.77E-02	5.77E-02	1.12E-01	pCi/g	
11-11068-02	MBL	BLANK	11/11/11 00:00	11/11/2011	12/11/2011	11-11068	Bismuth-214	LANL ER-130 Modified	8.49E-03	3.67E-02	3.67E-02	7.29E-02	pCi/g	
11-11068-02	MBL	BLANK	11/11/11 00:00	11/11/2011	12/11/2011	11-11068	Potassium-40	LANL ER-130 Modified	1.50E-01	1.77E-01	1.77E-01	4.28E-01	pCi/g	
11-11068-02	MBL	BLANK	11/11/11 00:00	11/11/2011	12/11/2011	11-11068	Protactinium-234m	LANL ER-130 Modified	-7.66E-02	1.52E+00	1.52E+00	3.08E+00	pCi/g	
11-11068-02	MBL	BLANK	11/11/11 00:00	11/11/2011	12/11/2011	11-11068	Lead-212	LANL ER-130 Modified	-9.64E-03	2.33E-02	2.33E-02	4.32E-02	pCi/g	
11-11068-02	MBL	BLANK	11/11/11 00:00	11/11/2011	12/11/2011	11-11068	Lead-214	LANL ER-130 Modified	3.97E-02	4.41E-02	4.42E-02	6.59E-02	pCi/g	
11-11068-02	MBL	BLANK	11/11/11 00:00	11/11/2011	12/11/2011	11-11068	Radium-226	LANL ER-130 Modified	8.49E-03	3.67E-02	3.67E-02	7.29E-02	pCi/g	
11-11068-02	MBL	BLANK	11/11/11 00:00	11/11/2011	12/11/2011	11-11068	Thorium-234	LANL ER-130 Modified	4.31E-02	3.97E-01	3.97E-01	7.38E-01	pCi/g	
11-11068-02	MBL	BLANK	11/11/11 00:00	11/11/2011	12/11/2011	11-11068	Thallium-208	LANL ER-130 Modified	4.58E-02	5.48E-02	5.49E-02	1.02E-01	pCi/g	
11-11068-03	DUP	BKGD-E-31-111107	11/07/11 15:06	11/11/2011	12/11/2011	11-11068	Actinium-228	LANL ER-130 Modified	1.60E+00	4.13E-01	4.21E-01	7.04E-01	pCi/g	
11-11068-03	DUP	BKGD-E-31-111107	11/07/11 15:06	11/11/2011	12/11/2011	11-11068	Bismuth-214	LANL ER-130 Modified	2.93E+01	1.74E+00	2.30E+00	3.24E-01	pCi/g	
11-11068-03	DUP	BKGD-E-31-111107	11/07/11 15:06	11/11/2011	12/11/2011	11-11068	Potassium-40	LANL ER-130 Modified	2.58E+01	3.61E+00	3.85E+00	1.81E+00	pCi/g	
11-11068-03	DUP	BKGD-E-31-111107	11/07/11 15:06	11/11/2011	12/11/2011	11-11068	Protactinium-234m	LANL ER-130 Modified	1.50E+01	1.39E+01	1.39E+01	2.09E+01	pCi/g	
11-11068-03	DUP	BKGD-E-31-111107	11/07/11 15:06	11/11/2011	12/11/2011	11-11068	Lead-212	LANL ER-130 Modified	1.27E+00	2.58E-01	2.66E-01	3.80E-01	pCi/g	
11-11068-03	DUP	BKGD-E-31-111107	11/07/11 15:06	11/11/2011	12/11/2011	11-11068	Lead-214	LANL ER-130 Modified	3.12E+01	2.10E+00	2.64E+00	4.06E-01	pCi/g	
11-11068-03	DUP	BKGD-E-31-111107	11/07/11 15:06	11/11/2011	12/11/2011	11-11068	Radium-226	LANL ER-130 Modified	2.93E+01	1.74E+00	2.30E+00	3.24E-01	pCi/g	
11-11068-03	DUP	BKGD-E-31-111107	11/07/11 15:06	11/11/2011	12/11/2011	11-11068	Thorium-234	LANL ER-130 Modified	1.45E+01	3.90E+00	3.97E+00	4.41E+00	pCi/g	
11-11068-03	DUP	BKGD-E-31-111107	11/07/11 15:06	11/11/2011	12/11/2011	11-11068	Thallium-208	LANL ER-130 Modified	1.65E+00	3.14E-01	3.25E-01	5.03E-01	pCi/g	

CU=Counting Uncertainty;CSU=Combined Standard Uncertainty (2-sigma);MDA=Minimal Detected Activity;LCS=Laboratory Control Sample; MBL=Blank; DUP=Duplicate; TRG=Normal Sample; DO=Duplicate Original



EBERLINE ANALYTICAL CORPORATION

601 SCARBORO ROAD OAK RIDGE, TN 37830 865/481-0683 FAX 865/483-4621

<h1>Eberline Analytical</h1> <h2>Final Report of Analysis</h2>			Report To:					Work Order Details:						
			Kristie Warr Weston Solutions, Inc. 5599 San Felipe Suite 700 Houston, TX 77056					SDG:	11-11068					
								Purchase Order:	0070138					
								Analysis Category:	ENVIRONMENTAL					
					Sample Matrix:		SO							
Lab ID	Sample Type	Client ID	Sample Date	Receipt Date	Analysis Date	Batch ID	Analyte	Method	Result	CU	CSU	MDA	Report Units	
11-11068-04	DO	BKGD-E-31-111107	11/07/11 15:06	11/11/2011	12/11/2011	11-11068	Actinium-228	LANL ER-130 Modified	1.86E+00	4.94E-01	5.03E-01	7.04E-01	pCi/g	
11-11068-04	DO	BKGD-E-31-111107	11/07/11 15:06	11/11/2011	12/11/2011	11-11068	Bismuth-212	LANL ER-130 Modified	1.30E+00	9.99E-01	1.00E+00	1.28E+00	pCi/g	
11-11068-04	DO	BKGD-E-31-111107	11/07/11 15:06	11/11/2011	12/11/2011	11-11068	Bismuth-214	LANL ER-130 Modified	3.01E+01	1.77E+00	2.34E+00	3.45E-01	pCi/g	
11-11068-04	DO	BKGD-E-31-111107	11/07/11 15:06	11/11/2011	12/11/2011	11-11068	Potassium-40	LANL ER-130 Modified	2.52E+01	3.60E+00	3.82E+00	1.82E+00	pCi/g	
11-11068-04	DO	BKGD-E-31-111107	11/07/11 15:06	11/11/2011	12/11/2011	11-11068	Protactinium-234m	LANL ER-130 Modified	2.84E+01	2.56E+01	2.56E+01	1.93E+01	pCi/g	
11-11068-04	DO	BKGD-E-31-111107	11/07/11 15:06	11/11/2011	12/11/2011	11-11068	Lead-212	LANL ER-130 Modified	1.29E+00	3.09E-01	3.16E-01	4.62E-01	pCi/g	
11-11068-04	DO	BKGD-E-31-111107	11/07/11 15:06	11/11/2011	12/11/2011	11-11068	Lead-214	LANL ER-130 Modified	3.06E+01	2.07E+00	2.60E+00	3.83E-01	pCi/g	
11-11068-04	DO	BKGD-E-31-111107	11/07/11 15:06	11/11/2011	12/11/2011	11-11068	Radium-226	LANL ER-130 Modified	3.01E+01	1.77E+00	2.34E+00	3.45E-01	pCi/g	
11-11068-04	DO	BKGD-E-31-111107	11/07/11 15:06	11/11/2011	12/11/2011	11-11068	Thorium-234	LANL ER-130 Modified	1.27E+01	4.33E+00	4.38E+00	4.47E+00	pCi/g	
11-11068-04	DO	BKGD-E-31-111107	11/07/11 15:06	11/11/2011	12/11/2011	11-11068	Thallium-208	LANL ER-130 Modified	1.56E+00	2.63E-01	2.74E-01	4.65E-01	pCi/g	
11-11068-05	TRG	BKGD-N-31-111107	11/07/11 15:18	11/11/2011	12/11/2011	11-11068	Actinium-228	LANL ER-130 Modified	2.37E+00	3.68E-01	3.88E-01	4.08E-01	pCi/g	
11-11068-05	TRG	BKGD-N-31-111107	11/07/11 15:18	11/11/2011	12/11/2011	11-11068	Bismuth-214	LANL ER-130 Modified	2.40E+00	3.26E-01	3.48E-01	2.09E-01	pCi/g	
11-11068-05	TRG	BKGD-N-31-111107	11/07/11 15:18	11/11/2011	12/11/2011	11-11068	Potassium-40	LANL ER-130 Modified	2.78E+01	3.84E+00	4.09E+00	1.03E+00	pCi/g	
11-11068-05	TRG	BKGD-N-31-111107	11/07/11 15:18	11/11/2011	12/11/2011	11-11068	Protactinium-234m	LANL ER-130 Modified	3.93E+00	7.28E+00	7.28E+00	1.35E+01	pCi/g	
11-11068-05	TRG	BKGD-N-31-111107	11/07/11 15:18	11/11/2011	12/11/2011	11-11068	Lead-212	LANL ER-130 Modified	2.49E+00	2.85E-01	3.12E-01	1.59E-01	pCi/g	
11-11068-05	TRG	BKGD-N-31-111107	11/07/11 15:18	11/11/2011	12/11/2011	11-11068	Lead-214	LANL ER-130 Modified	2.51E+00	2.64E-01	2.94E-01	2.03E-01	pCi/g	
11-11068-05	TRG	BKGD-N-31-111107	11/07/11 15:18	11/11/2011	12/11/2011	11-11068	Radium-226	LANL ER-130 Modified	2.40E+00	3.26E-01	3.48E-01	2.09E-01	pCi/g	
11-11068-05	TRG	BKGD-N-31-111107	11/07/11 15:18	11/11/2011	12/11/2011	11-11068	Thorium-234	LANL ER-130 Modified	1.77E+00	1.41E+00	1.41E+00	2.48E+00	pCi/g	
11-11068-05	TRG	BKGD-N-31-111107	11/07/11 15:18	11/11/2011	12/11/2011	11-11068	Thallium-208	LANL ER-130 Modified	1.98E+00	2.92E-01	3.10E-01	2.73E-01	pCi/g	
11-11068-06	TRG	BKGD-S-31-111107	11/07/11 15:45	11/11/2011	12/11/2011	11-11068	Actinium-228	LANL ER-130 Modified	2.48E+00	3.21E-01	3.46E-01	4.09E-01	pCi/g	
11-11068-06	TRG	BKGD-S-31-111107	11/07/11 15:45	11/11/2011	12/11/2011	11-11068	Bismuth-214	LANL ER-130 Modified	1.88E+00	2.65E-01	2.82E-01	2.08E-01	pCi/g	
11-11068-06	TRG	BKGD-S-31-111107	11/07/11 15:45	11/11/2011	12/11/2011	11-11068	Potassium-40	LANL ER-130 Modified	2.39E+01	3.29E+00	3.51E+00	9.11E-01	pCi/g	
11-11068-06	TRG	BKGD-S-31-111107	11/07/11 15:45	11/11/2011	12/11/2011	11-11068	Protactinium-234m	LANL ER-130 Modified	4.56E+00	8.72E+00	8.72E+00	1.50E+01	pCi/g	
11-11068-06	TRG	BKGD-S-31-111107	11/07/11 15:45	11/11/2011	12/11/2011	11-11068	Lead-212	LANL ER-130 Modified	2.40E+00	2.92E-01	3.17E-01	1.57E-01	pCi/g	
11-11068-06	TRG	BKGD-S-31-111107	11/07/11 15:45	11/11/2011	12/11/2011	11-11068	Lead-214	LANL ER-130 Modified	2.08E+00	2.51E-01	2.73E-01	1.98E-01	pCi/g	
11-11068-06	TRG	BKGD-S-31-111107	11/07/11 15:45	11/11/2011	12/11/2011	11-11068	Radium-226	LANL ER-130 Modified	1.88E+00	2.65E-01	2.82E-01	2.08E-01	pCi/g	
11-11068-06	TRG	BKGD-S-31-111107	11/07/11 15:45	11/11/2011	12/11/2011	11-11068	Thorium-234	LANL ER-130 Modified	2.18E+00	1.53E+00	1.54E+00	2.75E+00	pCi/g	
11-11068-06	TRG	BKGD-S-31-111107	11/07/11 15:45	11/11/2011	12/11/2011	11-11068	Thallium-208	LANL ER-130 Modified	1.90E+00	2.73E-01	2.90E-01	3.20E-01	pCi/g	

CU=Counting Uncertainty;CSU=Combined Standard Uncertainty (2-sigma);MDA=Minimal Detected Activity;LCS=Laboratory Control Sample; MBL=Blank; DUP=Duplicate; TRG=Normal Sample; DO=Duplicate Original



EBERLINE ANALYTICAL CORPORATION

601 SCARBORO ROAD OAK RIDGE, TN 37830 865/481-0683 FAX 865/483-4621

<h1>Eberline Analytical</h1> <h2>Final Report of Analysis</h2>			Report To:					Work Order Details:							
			Kristie Warr					SDG:	11-11068						
			Weston Solutions, Inc.					Purchase Order:	0070138						
			5599 San Felipe Suite 700					Analysis Category:	ENVIRONMENTAL						
Houston, TX 77056					Sample Matrix:	SO									
Lab ID	Sample Type	Client ID	Sample Date	Receipt Date	Analysis Date	Batch ID	Analyte	Method	Result	CU	CSU	MDA	Report Units		
11-11068-07	TRG	BKGD-W-31-111107	11/07/11 15:25	11/11/2011	12/11/2011	11-11068	Actinium-228	LANL ER-130 Modified	2.72E+00	7.43E-01	7.56E-01	8.17E-01	pCi/g		
11-11068-07	TRG	BKGD-W-31-111107	11/07/11 15:25	11/11/2011	12/11/2011	11-11068	Bismuth-214	LANL ER-130 Modified	2.25E+00	4.68E-01	4.82E-01	4.61E-01	pCi/g		
11-11068-07	TRG	BKGD-W-31-111107	11/07/11 15:25	11/11/2011	12/11/2011	11-11068	Potassium-40	LANL ER-130 Modified	2.92E+01	4.77E+00	5.00E+00	2.12E+00	pCi/g		
11-11068-07	TRG	BKGD-W-31-111107	11/07/11 15:25	11/11/2011	12/11/2011	11-11068	Protactinium-234m	LANL ER-130 Modified	6.67E+00	1.16E+01	1.16E+01	2.34E+01	pCi/g		
11-11068-07	TRG	BKGD-W-31-111107	11/07/11 15:25	11/11/2011	12/11/2011	11-11068	Lead-212	LANL ER-130 Modified	2.88E+00	4.13E-01	4.39E-01	3.12E-01	pCi/g		
11-11068-07	TRG	BKGD-W-31-111107	11/07/11 15:25	11/11/2011	12/11/2011	11-11068	Lead-214	LANL ER-130 Modified	2.28E+00	4.27E-01	4.43E-01	4.12E-01	pCi/g		
11-11068-07	TRG	BKGD-W-31-111107	11/07/11 15:25	11/11/2011	12/11/2011	11-11068	Radium-226	LANL ER-130 Modified	2.25E+00	4.68E-01	4.82E-01	4.61E-01	pCi/g		
11-11068-07	TRG	BKGD-W-31-111107	11/07/11 15:25	11/11/2011	12/11/2011	11-11068	Thorium-234	LANL ER-130 Modified	4.42E+00	3.97E+00	3.97E+00	3.86E+00	pCi/g		
11-11068-07	TRG	BKGD-W-31-111107	11/07/11 15:25	11/11/2011	12/11/2011	11-11068	Thallium-208	LANL ER-130 Modified	2.24E+00	5.24E-01	5.36E-01	6.83E-01	pCi/g		
11-11068-08	TRG	S12-12-31-111107	11/07/11 14:20	11/11/2011	12/11/2011	11-11068	Actinium-228	LANL ER-130 Modified	7.71E-01	6.53E-01	6.54E-01	8.70E-01	pCi/g		
11-11068-08	TRG	S12-12-31-111107	11/07/11 14:20	11/11/2011	12/11/2011	11-11068	Bismuth-214	LANL ER-130 Modified	3.71E+01	2.20E+00	2.91E+00	3.66E-01	pCi/g		
11-11068-08	TRG	S12-12-31-111107	11/07/11 14:20	11/11/2011	12/11/2011	11-11068	Potassium-40	LANL ER-130 Modified	3.13E+01	4.81E+00	5.07E+00	2.00E+00	pCi/g		
11-11068-08	TRG	S12-12-31-111107	11/07/11 14:20	11/11/2011	12/11/2011	11-11068	Protactinium-234m	LANL ER-130 Modified	3.07E+01	2.05E+01	2.06E+01	2.29E+01	pCi/g		
11-11068-08	TRG	S12-12-31-111107	11/07/11 14:20	11/11/2011	12/11/2011	11-11068	Lead-212	LANL ER-130 Modified	7.79E-01	1.79E-01	1.84E-01	4.05E-01	pCi/g		
11-11068-08	TRG	S12-12-31-111107	11/07/11 14:20	11/11/2011	12/11/2011	11-11068	Lead-214	LANL ER-130 Modified	3.70E+01	2.59E+00	3.21E+00	4.44E-01	pCi/g		
11-11068-08	TRG	S12-12-31-111107	11/07/11 14:20	11/11/2011	12/11/2011	11-11068	Radium-226	LANL ER-130 Modified	3.71E+01	2.20E+00	2.91E+00	3.66E-01	pCi/g		
11-11068-08	TRG	S12-12-31-111107	11/07/11 14:20	11/11/2011	12/11/2011	11-11068	Thorium-234	LANL ER-130 Modified	2.71E+01	5.66E+00	5.83E+00	5.22E+00	pCi/g		
11-11068-08	TRG	S12-12-31-111107	11/07/11 14:20	11/11/2011	12/11/2011	11-11068	Thallium-208	LANL ER-130 Modified	8.07E-01	2.36E-01	2.39E-01	5.74E-01	pCi/g		
11-11068-09	TRG	S12-14-31-111107	11/07/11 14:25	11/11/2011	12/11/2011	11-11068	Actinium-228	LANL ER-130 Modified	5.22E-01	7.77E-01	7.77E-01	1.35E+00	pCi/g		
11-11068-09	TRG	S12-14-31-111107	11/07/11 14:25	11/11/2011	12/11/2011	11-11068	Bismuth-214	LANL ER-130 Modified	7.97E+01	4.59E+00	6.15E+00	5.63E-01	pCi/g		
11-11068-09	TRG	S12-14-31-111107	11/07/11 14:25	11/11/2011	12/11/2011	11-11068	Potassium-40	LANL ER-130 Modified	2.54E+01	4.70E+00	4.88E+00	3.24E+00	pCi/g		
11-11068-09	TRG	S12-14-31-111107	11/07/11 14:25	11/11/2011	12/11/2011	11-11068	Protactinium-234m	LANL ER-130 Modified	3.75E+01	2.31E+01	2.32E+01	4.07E+01	pCi/g		
11-11068-09	TRG	S12-14-31-111107	11/07/11 14:25	11/11/2011	12/11/2011	11-11068	Lead-212	LANL ER-130 Modified	2.19E+00	4.14E-01	4.29E-01	6.21E-01	pCi/g		
11-11068-09	TRG	S12-14-31-111107	11/07/11 14:25	11/11/2011	12/11/2011	11-11068	Lead-214	LANL ER-130 Modified	8.43E+01	5.82E+00	7.25E+00	6.51E-01	pCi/g		
11-11068-09	TRG	S12-14-31-111107	11/07/11 14:25	11/11/2011	12/11/2011	11-11068	Radium-226	LANL ER-130 Modified	7.97E+01	4.59E+00	6.15E+00	5.63E-01	pCi/g		
11-11068-09	TRG	S12-14-31-111107	11/07/11 14:25	11/11/2011	12/11/2011	11-11068	Thorium-234	LANL ER-130 Modified	5.11E+01	8.98E+00	9.36E+00	7.92E+00	pCi/g		
11-11068-09	TRG	S12-14-31-111107	11/07/11 14:25	11/11/2011	12/11/2011	11-11068	Thallium-208	LANL ER-130 Modified	1.03E+00	2.81E-01	2.86E-01	8.76E-01	pCi/g		

CU=Counting Uncertainty;CSU=Combined Standard Uncertainty (2-sigma);MDA=Minimal Detected Activity;LCS=Laboratory Control Sample; MBL=Blank; DUP=Duplicate; TRG=Normal Sample; DO=Duplicate Original



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			Kristie Warr Weston Solutions, Inc. 5599 San Felipe Suite 700 Houston, TX 77056					SDG:	11-11068						
								Purchase Order:	0070138						
								Analysis Category:	ENVIRONMENTAL						
					Sample Matrix:		SO								
Lab ID	Sample Type	Client ID	Sample Date	Receipt Date	Analysis Date	Batch ID	Analyte	Method	Result	CU	CSU	MDA	Report Units		
11-11068-10	TRG	S12-22-31-111107	11/07/11 14:40	11/11/2011	12/11/2011	11-11068	Actinium-228	LANL ER-130 Modified	2.69E+00	2.13E+00	2.13E+00	2.70E+00	pCi/g		
11-11068-10	TRG	S12-22-31-111107	11/07/11 14:40	11/11/2011	12/11/2011	11-11068	Bismuth-214	LANL ER-130 Modified	1.08E+02	6.71E+00	8.70E+00	1.17E+00	pCi/g		
11-11068-10	TRG	S12-22-31-111107	11/07/11 14:40	11/11/2011	12/11/2011	11-11068	Potassium-40	LANL ER-130 Modified	2.90E+01	6.82E+00	6.98E+00	6.93E+00	pCi/g		
11-11068-10	TRG	S12-22-31-111107	11/07/11 14:40	11/11/2011	12/11/2011	11-11068	Protactinium-234m	LANL ER-130 Modified	3.40E+01	4.26E+01	4.27E+01	7.52E+01	pCi/g		
11-11068-10	TRG	S12-22-31-111107	11/07/11 14:40	11/11/2011	12/11/2011	11-11068	Lead-212	LANL ER-130 Modified	8.96E+00	1.17E+00	1.26E+00	1.38E+00	pCi/g		
11-11068-10	TRG	S12-22-31-111107	11/07/11 14:40	11/11/2011	12/11/2011	11-11068	Lead-214	LANL ER-130 Modified	1.09E+02	8.98E+00	1.06E+01	1.31E+00	pCi/g		
11-11068-10	TRG	S12-22-31-111107	11/07/11 14:40	11/11/2011	12/11/2011	11-11068	Radium-226	LANL ER-130 Modified	1.08E+02	6.71E+00	8.70E+00	1.17E+00	pCi/g		
11-11068-10	TRG	S12-22-31-111107	11/07/11 14:40	11/11/2011	12/11/2011	11-11068	Thorium-234	LANL ER-130 Modified	5.38E+01	1.06E+01	1.09E+01	1.29E+01	pCi/g		
11-11068-10	TRG	S12-22-31-111107	11/07/11 14:40	11/11/2011	12/11/2011	11-11068	Thallium-208	LANL ER-130 Modified	7.78E-01	3.96E-01	3.98E-01	1.81E+00	pCi/g		
11-11068-11	TRG	S12-33-31-111107	11/07/11 14:14	11/11/2011	12/11/2011	11-11068	Actinium-228	LANL ER-130 Modified	1.88E+00	1.23E+00	1.23E+00	1.51E+00	pCi/g		
11-11068-11	TRG	S12-33-31-111107	11/07/11 14:14	11/11/2011	12/11/2011	11-11068	Bismuth-214	LANL ER-130 Modified	1.78E+02	8.88E+00	1.27E+01	6.81E-01	pCi/g		
11-11068-11	TRG	S12-33-31-111107	11/07/11 14:14	11/11/2011	12/11/2011	11-11068	Potassium-40	LANL ER-130 Modified	3.04E+01	4.39E+00	4.66E+00	3.84E+00	pCi/g		
11-11068-11	TRG	S12-33-31-111107	11/07/11 14:14	11/11/2011	12/11/2011	11-11068	Protactinium-234m	LANL ER-130 Modified	2.03E+02	5.45E+01	5.55E+01	4.14E+01	pCi/g		
11-11068-11	TRG	S12-33-31-111107	11/07/11 14:14	11/11/2011	12/11/2011	11-11068	Lead-212	LANL ER-130 Modified	3.97E+00	6.19E-01	6.51E-01	8.48E-01	pCi/g		
11-11068-11	TRG	S12-33-31-111107	11/07/11 14:14	11/11/2011	12/11/2011	11-11068	Lead-214	LANL ER-130 Modified	1.81E+02	1.18E+01	1.50E+01	8.53E-01	pCi/g		
11-11068-11	TRG	S12-33-31-111107	11/07/11 14:14	11/11/2011	12/11/2011	11-11068	Radium-226	LANL ER-130 Modified	1.78E+02	8.88E+00	1.27E+01	6.81E-01	pCi/g		
11-11068-11	TRG	S12-33-31-111107	11/07/11 14:14	11/11/2011	12/11/2011	11-11068	Thorium-234	LANL ER-130 Modified	1.31E+02	1.44E+01	1.59E+01	1.06E+01	pCi/g		
11-11068-11	TRG	S12-33-31-111107	11/07/11 14:14	11/11/2011	12/11/2011	11-11068	Thallium-208	LANL ER-130 Modified	1.61E+00	7.32E-01	7.37E-01	1.14E+00	pCi/g		
11-11068-12	TRG	S12-34-31-111107	11/07/11 14:12	11/11/2011	12/11/2011	11-11068	Actinium-228	LANL ER-130 Modified	1.50E+00	1.12E+00	1.12E+00	1.54E+00	pCi/g		
11-11068-12	TRG	S12-34-31-111107	11/07/11 14:12	11/11/2011	12/11/2011	11-11068	Bismuth-214	LANL ER-130 Modified	1.81E+02	9.50E+00	1.33E+01	7.13E-01	pCi/g		
11-11068-12	TRG	S12-34-31-111107	11/07/11 14:12	11/11/2011	12/11/2011	11-11068	Potassium-40	LANL ER-130 Modified	2.74E+01	4.67E+00	4.87E+00	3.92E+00	pCi/g		
11-11068-12	TRG	S12-34-31-111107	11/07/11 14:12	11/11/2011	12/11/2011	11-11068	Protactinium-234m	LANL ER-130 Modified	1.46E+02	4.33E+01	4.40E+01	4.24E+01	pCi/g		
11-11068-12	TRG	S12-34-31-111107	11/07/11 14:12	11/11/2011	12/11/2011	11-11068	Lead-212	LANL ER-130 Modified	3.71E+00	5.95E-01	6.25E-01	8.31E-01	pCi/g		
11-11068-12	TRG	S12-34-31-111107	11/07/11 14:12	11/11/2011	12/11/2011	11-11068	Lead-214	LANL ER-130 Modified	1.85E+02	1.25E+01	1.57E+01	8.66E-01	pCi/g		
11-11068-12	TRG	S12-34-31-111107	11/07/11 14:12	11/11/2011	12/11/2011	11-11068	Radium-226	LANL ER-130 Modified	1.81E+02	9.50E+00	1.33E+01	7.13E-01	pCi/g		
11-11068-12	TRG	S12-34-31-111107	11/07/11 14:12	11/11/2011	12/11/2011	11-11068	Thorium-234	LANL ER-130 Modified	1.21E+02	1.45E+01	1.58E+01	1.04E+01	pCi/g		
11-11068-12	TRG	S12-34-31-111107	11/07/11 14:12	11/11/2011	12/11/2011	11-11068	Thallium-208	LANL ER-130 Modified	8.46E-01	7.31E-01	7.32E-01	1.14E+00	pCi/g		

CU=Counting Uncertainty;CSU=Combined Standard Uncertainty (2-sigma);MDA=Minimal Detected Activity;LCS=Laboratory Control Sample; MBL=Blank; DUP=Duplicate; TRG=Normal Sample; DO=Duplicate Original



EBERLINE ANALYTICAL CORPORATION

601 SCARBORO ROAD OAK RIDGE, TN 37830 865/481-0683 FAX 865/483-4621

<h1>Eberline Analytical</h1> <h2>Final Report of Analysis</h2>			Report To:					Work Order Details:							
			Kristie Warr Weston Solutions, Inc. 5599 San Felipe Suite 700 Houston, TX 77056					SDG:	11-11068						
								Purchase Order:	0070138						
								Analysis Category:	ENVIRONMENTAL						
					Sample Matrix:		SO								
Lab ID	Sample Type	Client ID	Sample Date	Receipt Date	Analysis Date	Batch ID	Analyte	Method	Result	CU	CSU	MDA	Report Units		
11-11068-13	TRG	S12-34-32-111107	11/07/11 14:12	11/11/2011	12/11/2011	11-11068	Actinium-228	LANL ER-130 Modified	3.93E-01	1.02E+00	1.02E+00	1.74E+00	pCi/g		
11-11068-13	TRG	S12-34-32-111107	11/07/11 14:12	11/11/2011	12/11/2011	11-11068	Bismuth-214	LANL ER-130 Modified	1.73E+02	9.38E+00	1.29E+01	8.09E-01	pCi/g		
11-11068-13	TRG	S12-34-32-111107	11/07/11 14:12	11/11/2011	12/11/2011	11-11068	Potassium-40	LANL ER-130 Modified	2.76E+01	5.89E+00	6.06E+00	4.60E+00	pCi/g		
11-11068-13	TRG	S12-34-32-111107	11/07/11 14:12	11/11/2011	12/11/2011	11-11068	Protactinium-234m	LANL ER-130 Modified	1.60E+02	5.40E+01	5.46E+01	4.93E+01	pCi/g		
11-11068-13	TRG	S12-34-32-111107	11/07/11 14:12	11/11/2011	12/11/2011	11-11068	Lead-212	LANL ER-130 Modified	2.16E+00	5.26E-01	5.38E-01	8.12E-01	pCi/g		
11-11068-13	TRG	S12-34-32-111107	11/07/11 14:12	11/11/2011	12/11/2011	11-11068	Lead-214	LANL ER-130 Modified	1.80E+02	1.23E+01	1.54E+01	9.37E-01	pCi/g		
11-11068-13	TRG	S12-34-32-111107	11/07/11 14:12	11/11/2011	12/11/2011	11-11068	Radium-226	LANL ER-130 Modified	1.73E+02	9.38E+00	1.29E+01	8.09E-01	pCi/g		
11-11068-13	TRG	S12-34-32-111107	11/07/11 14:12	11/11/2011	12/11/2011	11-11068	Thorium-234	LANL ER-130 Modified	1.48E+02	1.82E+01	1.97E+01	1.15E+01	pCi/g		
11-11068-13	TRG	S12-34-32-111107	11/07/11 14:12	11/11/2011	12/11/2011	11-11068	Thallium-208	LANL ER-130 Modified	1.54E+00	7.42E-01	7.46E-01	1.29E+00	pCi/g		
11-11068-14	TRG	S12-35-31-111107	11/07/11 14:10	11/11/2011	12/11/2011	11-11068	Actinium-228	LANL ER-130 Modified	6.50E-01	2.03E+00	2.03E+00	3.48E+00	pCi/g		
11-11068-14	TRG	S12-35-31-111107	11/07/11 14:10	11/11/2011	12/11/2011	11-11068	Bismuth-214	LANL ER-130 Modified	2.41E+02	1.38E+01	1.86E+01	1.63E+00	pCi/g		
11-11068-14	TRG	S12-35-31-111107	11/07/11 14:10	11/11/2011	12/11/2011	11-11068	Potassium-40	LANL ER-130 Modified	3.31E+01	1.04E+01	1.06E+01	9.07E+00	pCi/g		
11-11068-14	TRG	S12-35-31-111107	11/07/11 14:10	11/11/2011	12/11/2011	11-11068	Protactinium-234m	LANL ER-130 Modified	2.93E+02	1.01E+02	1.02E+02	9.88E+01	pCi/g		
11-11068-14	TRG	S12-35-31-111107	11/07/11 14:10	11/11/2011	12/11/2011	11-11068	Lead-212	LANL ER-130 Modified	1.82E+01	2.11E+00	2.31E+00	1.90E+00	pCi/g		
11-11068-14	TRG	S12-35-31-111107	11/07/11 14:10	11/11/2011	12/11/2011	11-11068	Lead-214	LANL ER-130 Modified	2.40E+02	1.95E+01	2.31E+01	1.90E+00	pCi/g		
11-11068-14	TRG	S12-35-31-111107	11/07/11 14:10	11/11/2011	12/11/2011	11-11068	Radium-226	LANL ER-130 Modified	2.41E+02	1.38E+01	1.86E+01	1.63E+00	pCi/g		
11-11068-14	TRG	S12-35-31-111107	11/07/11 14:10	11/11/2011	12/11/2011	11-11068	Thorium-234	LANL ER-130 Modified	2.37E+02	2.50E+01	2.78E+01	2.03E+01	pCi/g		
11-11068-14	TRG	S12-35-31-111107	11/07/11 14:10	11/11/2011	12/11/2011	11-11068	Thallium-208	LANL ER-130 Modified	2.56E+00	1.82E+00	1.82E+00	2.63E+00	pCi/g		
11-11068-15	TRG	S12-52-31-111107	11/07/11 14:56	11/11/2011	12/11/2011	11-11068	Actinium-228	LANL ER-130 Modified	1.10E+00	5.48E-01	5.51E-01	8.88E-01	pCi/g		
11-11068-15	TRG	S12-52-31-111107	11/07/11 14:56	11/11/2011	12/11/2011	11-11068	Bismuth-214	LANL ER-130 Modified	5.56E+01	3.53E+00	4.54E+00	4.42E-01	pCi/g		
11-11068-15	TRG	S12-52-31-111107	11/07/11 14:56	11/11/2011	12/11/2011	11-11068	Potassium-40	LANL ER-130 Modified	3.29E+01	4.48E+00	4.78E+00	2.25E+00	pCi/g		
11-11068-15	TRG	S12-52-31-111107	11/07/11 14:56	11/11/2011	12/11/2011	11-11068	Protactinium-234m	LANL ER-130 Modified	8.71E+01	2.78E+01	2.82E+01	2.61E+01	pCi/g		
11-11068-15	TRG	S12-52-31-111107	11/07/11 14:56	11/11/2011	12/11/2011	11-11068	Lead-212	LANL ER-130 Modified	1.11E+00	3.52E-01	3.56E-01	4.60E-01	pCi/g		
11-11068-15	TRG	S12-52-31-111107	11/07/11 14:56	11/11/2011	12/11/2011	11-11068	Lead-214	LANL ER-130 Modified	5.80E+01	3.84E+00	4.85E+00	5.37E-01	pCi/g		
11-11068-15	TRG	S12-52-31-111107	11/07/11 14:56	11/11/2011	12/11/2011	11-11068	Radium-226	LANL ER-130 Modified	5.56E+01	3.53E+00	4.54E+00	4.42E-01	pCi/g		
11-11068-15	TRG	S12-52-31-111107	11/07/11 14:56	11/11/2011	12/11/2011	11-11068	Thorium-234	LANL ER-130 Modified	9.26E+01	9.76E+00	1.09E+01	6.39E+00	pCi/g		
11-11068-15	TRG	S12-52-31-111107	11/07/11 14:56	11/11/2011	12/11/2011	11-11068	Thallium-208	LANL ER-130 Modified	7.07E-01	2.26E-01	2.29E-01	6.91E-01	pCi/g		

CU=Counting Uncertainty;CSU=Combined Standard Uncertainty (2-sigma);MDA=Minimal Detected Activity;LCS=Laboratory Control Sample; MBL=Blank; DUP=Duplicate; TRG=Normal Sample; DO=Duplicate Original



EBERLINE ANALYTICAL CORPORATION

601 SCARBORO ROAD OAK RIDGE, TN 37830 865/481-0683 FAX 865/483-4621

<h1>Eberline Analytical</h1> <h2>Final Report of Analysis</h2>			Report To:					Work Order Details:						
			Kristie Warr					SDG:	11-11068					
			Weston Solutions, Inc.					Purchase Order:	0070138					
			5599 San Felipe Suite 700					Analysis Category:	ENVIRONMENTAL					
			Houston, TX 77056					Sample Matrix:	SO					
Lab ID	Sample Type	Client ID	Sample Date	Receipt Date	Analysis Date	Batch ID	Analyte	Method	Result	CU	CSU	MDA	Report Units	
11-11068-16	TRG	S12-56-31-111107	11/07/11 14:49	11/11/2011	12/11/2011	11-11068	Actinium-228	LANL ER-130 Modified	1.59E+00	1.04E+00	1.05E+00	1.14E+00	pCi/g	
11-11068-16	TRG	S12-56-31-111107	11/07/11 14:49	11/11/2011	12/11/2011	11-11068	Bismuth-214	LANL ER-130 Modified	7.03E+01	3.92E+00	5.33E+00	4.76E-01	pCi/g	
11-11068-16	TRG	S12-56-31-111107	11/07/11 14:49	11/11/2011	12/11/2011	11-11068	Potassium-40	LANL ER-130 Modified	2.90E+01	4.91E+00	5.13E+00	2.69E+00	pCi/g	
11-11068-16	TRG	S12-56-31-111107	11/07/11 14:49	11/11/2011	12/11/2011	11-11068	Protactinium-234m	LANL ER-130 Modified	5.17E+01	2.58E+01	2.60E+01	3.04E+01	pCi/g	
11-11068-16	TRG	S12-56-31-111107	11/07/11 14:49	11/11/2011	12/11/2011	11-11068	Lead-212	LANL ER-130 Modified	1.35E+00	3.74E-01	3.80E-01	4.93E-01	pCi/g	
11-11068-16	TRG	S12-56-31-111107	11/07/11 14:49	11/11/2011	12/11/2011	11-11068	Lead-214	LANL ER-130 Modified	7.25E+01	4.94E+00	6.18E+00	5.75E-01	pCi/g	
11-11068-16	TRG	S12-56-31-111107	11/07/11 14:49	11/11/2011	12/11/2011	11-11068	Radium-226	LANL ER-130 Modified	7.03E+01	3.92E+00	5.33E+00	4.76E-01	pCi/g	
11-11068-16	TRG	S12-56-31-111107	11/07/11 14:49	11/11/2011	12/11/2011	11-11068	Thorium-234	LANL ER-130 Modified	4.10E+01	7.00E+00	7.31E+00	6.62E+00	pCi/g	
11-11068-16	TRG	S12-56-31-111107	11/07/11 14:49	11/11/2011	12/11/2011	11-11068	Thallium-208	LANL ER-130 Modified	1.03E+00	2.47E-01	2.52E-01	7.27E-01	pCi/g	
11-11068-17	TRG	S12-64-31-111107	11/07/11 14:52	11/11/2011	12/11/2011	11-11068	Actinium-228	LANL ER-130 Modified	2.16E+00	4.24E-01	4.38E-01	4.78E-01	pCi/g	
11-11068-17	TRG	S12-64-31-111107	11/07/11 14:52	11/11/2011	12/11/2011	11-11068	Bismuth-214	LANL ER-130 Modified	1.31E+01	8.88E-01	1.11E+00	2.42E-01	pCi/g	
11-11068-17	TRG	S12-64-31-111107	11/07/11 14:52	11/11/2011	12/11/2011	11-11068	Potassium-40	LANL ER-130 Modified	2.64E+01	3.48E+00	3.74E+00	1.33E+00	pCi/g	
11-11068-17	TRG	S12-64-31-111107	11/07/11 14:52	11/11/2011	12/11/2011	11-11068	Protactinium-234m	LANL ER-130 Modified	1.39E+01	1.28E+01	1.28E+01	1.35E+01	pCi/g	
11-11068-17	TRG	S12-64-31-111107	11/07/11 14:52	11/11/2011	12/11/2011	11-11068	Lead-212	LANL ER-130 Modified	2.06E+00	2.77E-01	2.96E-01	2.25E-01	pCi/g	
11-11068-17	TRG	S12-64-31-111107	11/07/11 14:52	11/11/2011	12/11/2011	11-11068	Lead-214	LANL ER-130 Modified	1.32E+01	9.34E-01	1.15E+00	2.68E-01	pCi/g	
11-11068-17	TRG	S12-64-31-111107	11/07/11 14:52	11/11/2011	12/11/2011	11-11068	Radium-226	LANL ER-130 Modified	1.31E+01	8.88E-01	1.11E+00	2.42E-01	pCi/g	
11-11068-17	TRG	S12-64-31-111107	11/07/11 14:52	11/11/2011	12/11/2011	11-11068	Thorium-234	LANL ER-130 Modified	1.18E+01	3.07E+00	3.12E+00	3.09E+00	pCi/g	
11-11068-17	TRG	S12-64-31-111107	11/07/11 14:52	11/11/2011	12/11/2011	11-11068	Thallium-208	LANL ER-130 Modified	1.85E+00	2.73E-01	2.89E-01	3.71E-01	pCi/g	

CU=Counting Uncertainty;CSU=Combined Standard Uncertainty (2-sigma);MDA=Minimal Detected Activity;LCS=Laboratory Control Sample; MBL=Blank; DUP=Duplicate; TRG=Normal Sample; DO=Duplicate Original



EBERLINE ANALYTICAL CORPORATION

601 SCARBORO ROAD OAK RIDGE, TN 37830 865/481-0683 FAX 865/483-4621

SECTION V
ANALYTICAL STANDARD

CERTIFICATE OF CALIBRATION
Standard Radionuclide Source

GAS-1102

83913-416

Sand in 16 oz. PP Taral Jar Filled to Top

Customer: Eberline Services / Eberline Analytical Corp.

P.O. No.: 6705, Item 8

Reference Date: 01-Jan-2011 12:00 PM EST **Grams of Master Source:** 0.016810

This standard radionuclide source was prepared using aliquots measured gravimetrically from master radionuclide solutions. Calibration and purity were checked using a germanium gamma spectrometer system. At the time of calibration no interfering gamma-ray emitting impurities were detected. The gamma-ray emission rates for the most intense gamma-ray lines are given. Eckert & Ziegler Analytics (EZA) maintains traceability to the National Institute of Standards and Technology through a Measurements Assurance Program as described in USNRC Regulatory Guide 4.15, Revision 1, February, 1979, and compliance with ANSI N42.22-1995, "Traceability of Radioactive Sources to NIST." EZA is accredited by the Health Physics Society (HPS) for the production of NIST-traceable sources, and this source was produced in accordance with the HPS accreditation requirements. Customers may report any concerns with the accreditation program to the HPS Secretariat, 1313 Dolley Madison Blvd., Ste. 402, McLean, VA 22101.

Nuclide	Gamma-Ray Energy (keV)	Half-Life, Days	Master Source* yps/gram	This Source yps	Uncertainty, %			Calibration Method
					u_A	u_B	U	
Am-241	59.5	1.580E+05	—	2.075E+03	0.1	1.7	3.5	4π LS
Cd-109	88.0	4.626E+02	1.697E+05	2.853E+03	0.8	2.3	4.9	HPGe
Co-57	122.1	2.718E+02	8.711E+04	1.464E+03	0.5	2.0	4.1	HPGe
Ce-139	165.9	1.376E+02	1.247E+05	2.096E+03	0.5	1.9	3.9	HPGe
Hg-203	279.2	4.661E+01	2.753E+05	4.628E+03	0.4	1.9	3.9	HPGe
Sn-113	391.7	1.151E+02	1.769E+05	2.974E+03	0.5	1.9	3.9	HPGe
Cs-137	661.7	1.098E+04	1.109E+05	1.864E+03	0.7	1.9	4.0	HPGe
Y-88	898.0	1.066E+02	4.224E+05	7.101E+03	0.5	1.9	3.9	HPGe
Co-60	1173.2	1.925E+03	2.142E+05	3.601E+03	0.6	1.9	4.0	HPGe
Co-60	1332.5	1.925E+03	2.143E+05	3.602E+03	0.6	1.9	4.0	HPGe
Y-88	1836.1	1.066E+02	4.472E+05	7.517E+03	0.5	1.9	3.9	HPGe

* Master Source refers to Analytics' 8-isotope mixture which is calibrated quarterly.

Calibration Methods: 4π LS - 4 pi Liquid Scintillation Counting, HPGe - High Purity Germanium Gamma-Ray Spectrometer, IC - Ionization Chamber. **Uncertainty:** U - Relative expanded uncertainty, k = 2. See NIST Technical Note 1297, "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Results."

(Certificate continued on reverse side)



CERTIFICATE OF CALIBRATION
Standard Radionuclide Source

GAS-1002

81341-416

Sand in 16 oz PP Taral Jar Filled to Top

Customer: Eberline Services / Eberline Analytical Corp. / Oak Ridge
P.O. No.: 5964, Item 6

Reference Date: 01-Jan-2010 12:00 PM EST **Grams of Master Source:** 0.017446

This standard radionuclide source was prepared using aliquots measured gravimetrically from master radionuclide solutions. Calibration and purity were checked using a germanium gamma spectrometer system. At the time of calibration no interfering gamma-ray emitting impurities were detected. The gamma-ray emission rates for the most intense gamma-ray lines are given. Eckert & Ziegler Analytics (EZA) maintains traceability to the National Institute of Standards and Technology through a Measurements Assurance Program as described in USNRC Regulatory Guide 4.15, Revision 1, February, 1979, and compliance with ANSI N42.22-1995, "Traceability of Radioactive Sources to NIST." EZA is accredited by the Health Physics Society (HPS) for the production of NIST-traceable sources, and this source was produced in accordance with the HPS accreditation requirements. Customers may report any concerns with the accreditation program to the HPS Secretariat, 1313 Dolley Madison Blvd., Ste. 402, McLean, VA 22101.

Nuclide	Gamma-Ray Energy (keV)	Half-Life, Days	Master Source* $\mu\text{ps}/\text{gram}$	This Source μps	Uncertainty, %			Calibration Method
					u_A	u_B	U	
Am-241	59.5	1.580E+05	—	2.020E+03	0.1	1.7	3.5	4 π LS
Cd-109	88.0	4.626E+02	1.606E+05	2.802E+03	0.4	2.3	4.7	HPGe
Co-57	122.1	2.718E+02	8.471E+04	1.478E+03	0.5	2.0	4.1	HPGe
Ce-139	165.9	1.376E+02	1.209E+05	2.109E+03	0.4	1.9	3.9	HPGe
Hg-203	279.2	4.661E+01	2.726E+05	4.756E+03	0.4	1.9	3.9	HPGe
Sn-113	391.7	1.151E+02	1.672E+05	2.917E+03	0.5	1.9	3.9	HPGe
Cs-137	661.7	1.098E+04	1.096E+05	1.912E+03	0.6	1.9	4.0	HPGe
Y-88	898.0	1.066E+02	4.077E+05	7.113E+03	0.4	1.9	3.9	HPGe
Co-60	1173.2	1.925E+03	2.055E+05	3.585E+03	0.5	1.9	3.9	HPGe
Co-60	1332.5	1.925E+03	2.056E+05	3.587E+03	0.7	1.9	4.0	HPGe
Y-88	1836.1	1.066E+02	4.308E+05	7.516E+03	0.5	1.9	3.9	HPGe

* Master Source refers to Analytics' 8-isotope mixture which is calibrated quarterly.

Calibration Methods: 4 π LS - 4 pi Liquid Scintillation Counting, HPGe - High Purity Germanium Gamma-Ray Spectrometer, IC - Ionization Chamber. **Uncertainty:** U - Relative expanded uncertainty, k = 2. See NIST Technical Note 1297, "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Results."

(Certificate continued on reverse side)



Comments:

260 mL / 260 g of pulverized soil.

This standard will expire one year after the reference date.

Source Prepared by:

M. I. Taskaeva
M. I. Taskaeva, Radiochemist

QA Approved:

J. D. McCorvey
J. D. McCorvey, QA Manager Alternate

Date:

1/29/10



SECTION VI
QUALITY CONTROL SAMPLE RESULTS SUMMARY

WO	Analysis	Run	Activity Units	Aliquot Units	Client Name
11-11068	Gamma	1	pCi	g	Weston Solutions, Inc.

Laboratory Control Sample

Analyte	Normalized Difference	LCS Measured	CSU Measured	LCS Expected	Uncert. Expected	Known	Known Error	Result	CSU	Standard ID	Standard ACT (dpm)	Standard Error	Standard Added (g)
CO-60	0.51	102.51%	9.15%	100.00%	3.95%	1.32E+02	5.20E+00	1.35E+02	1.23E+01	GAS-1002	1.32E+02	5.20E+00	7.36E+02
CS-137	0.62	103.86%	11.54%	100.00%	4.00%	8.25E+01	3.30E+00	8.57E+01	9.89E+00	GAS-1002	8.25E+01	3.30E+00	7.36E+02

Matrix Spike

Analyte	Normalized Difference	MS Actual % Rec	Expected MS Result	Expected MS Uncert	Actual MS Result	Actual MS CSU	Sample Result	Sample CSU	Sample Aliquot	Standard ID	Standard ACT (dpm)	Standard Error %	Standard Added (g)

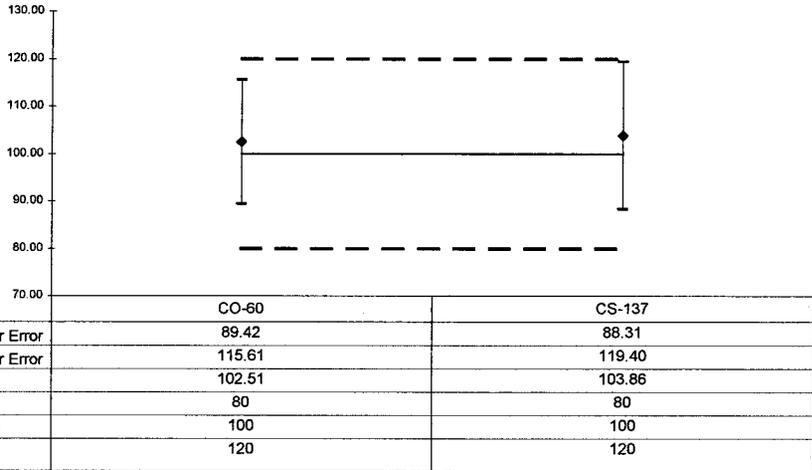
Replicate Sample

QC Summary

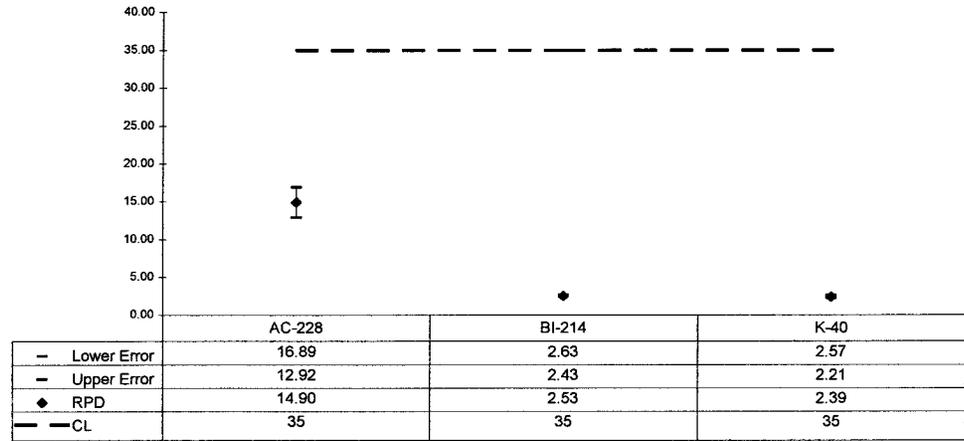
Analyte	Normalized Difference	RPD	Original Result	Original CSU	Replicate Result	Replicate CSU	LCS Relative Bias	LCS % R	LCS ND	MS % R	MS ND	Rep RPD	Rep ND
AC-228	0.77	14.90	1.86E+00	5.03E-01	1.60E+00	4.21E-01	1.03	OK	OK	<CS-137	AC-228>	NA	
BI-214	0.45	2.53	3.01E+01	2.34E+00	2.93E+01	2.30E+00	1.04	OK	OK	<CO-60	BI-214>	NA	OK
K-40	0.22	2.39	2.52E+01	3.82E+00	2.58E+01	3.85E+00					K-40>	NA	OK

WO	Analysis	Run	Activity Units	Aliquot Units	Client Name
11-11068	Gamma	1	pCi	g	Weston Solutions, Inc.

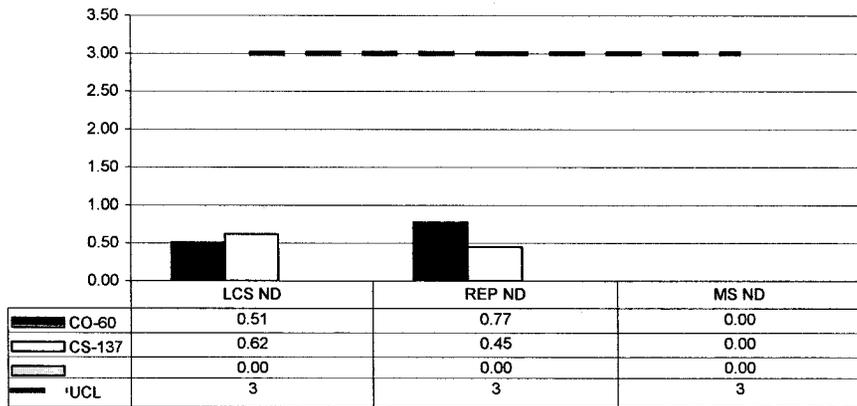
LCS % Recovery



Replicate Sample RPD



Normalized Difference



No Matrix Spike

SECTION VII
LABORATORY TECHNICIAN'S NOTES
&
RUN LOGS

DATE Sample # Client Load Time CT/Time Analysis Tech

12/11/11	1111065-13	Weston	1113	1 HR	δ	AC
12/11/11	1111065-16	Weston	1216	1 HR	δ	AC
12/11/11	1111068-03	Weston	1321	1 HR	δ	AG
12/11/11	1111068-04	Weston	1429	1 HR	δ	AG
12/11/11	1111068-11	Weston	1542	1 HR	δ	AG
12/11/11	1111068-15	Weston	1644	1 HR	δ	AG
12/11/11	1111068-18	Weston	1949	1 HR	δ	AC

DATE	SAMPLE #	Client	Load Time	CT Time	Analysis	Feed
12/9/11	Daily Bkgd	Lab	0715	15min	✓	AG
12/9/11	GAW-11	Lab	0736	15min	✓	AG
12/9/11	1111011-06	USA	0825	1 hr	✓	AG
12/9/11	1111011-10	USA	0928	1 hr	✓	AG
12/9/11	1111011-13	USA	1030	1 hr	✓	ICB
12/9/11	1111011-16	USA	1131	1 hr	✓	ICB
12/9/11	1111108-06	Eberline Serv.	1235	1 hr	✓	ICB
12/9/11	1111107-09	Eberline Serv.	1340	1 hr	✓	ICB
12/9/11	1111108-13	Eberline Serv.	1443	1 hr	✓	ICB
12/9/11	111120-07	UCOR	1544	2 hrs	✓	ICB
12/9/11	111120-08	UCOR	1746	2 hrs	✓	ICB
12/10/11	GAS 1102	Lab	0359	15 min	✓	ICB
12/10/11	GAS 1101	Lab	0419	15 min	✓	ICB
12/10/11	Daily Bkgd	Lab	0437	15 min	✓	ICB
12/10/11	1111045-04	Weston	0500	1 hr	✓	ICB
12/10/11	1111045-06	Weston	0602	1 hr	✓	ICB
12/10/11	1111045-11	Weston	0703	1 hr	✓	ICB
12/10/11	1111116-03	Eberline Serv.	0803	1 hr	✓	ICB
12/10/11	1111116-04	Eberline Serv.	0904	1 hr	✓	ICB
12/10/11	1111116-10	Eberline Serv.	1005	1 hr	✓	ICB
12/10/11	1111116-14	Eberline Serv.	1106	1 hr	✓	ICB
12/10/11	1111116-18	Eberline Serv.	1209	1 hr	✓	ICB
12/10/11	1111065-05	Weston	1309	1 hr	✓	ICB
12/10/11	1111065-08	Weston	1414	1 hr	✓	AG
12/10/11	1111065-12	Weston	1524	1 hr	✓	AG
12/10/11	Chamber Bkgd	Lab	1754	12 hr	✓	AG
12/11/11	Daily Bkgd	Lab	1001	15 min	✓	AG
12/11/11	GAS-1102	Lab	1026	15 min	✓	AG
12/11/11	1111065-14	Weston	1114	1 hr	✓	AG
12/11/11	1111065-17	Weston	1218	1 hr	✓	AG
12/11/11	1111068-05	Weston	1322	1 hr	✓	AG
12/11/11	1111068-08	Weston	1430	1 hr	✓	AG
12/11/11	1111068-12	Weston	1543	1 hr	✓	AG
12/11/11	1111068-16	Weston	1646	1 hr	✓	AG

GE 4

115

DATE	SAMPLE #	Client	LoadTime	CTTime	Analysis	Tech
12/11/11	1111068-07	Weston	1325	1 HR	Y	AG
12/11/11	1111068-10	Weston	1432	1 HR	Y	AG
12/11/11	1111068-01	Weston	1540	30 min	Y	AG
12/11/11	1111068-14	Weston	1616	1 HR	Y	AG

SECTION VIII
ANALYTICAL DATA (GAMMA SPECTROSCOPY)

Gamma

Run 1

Work Order	11-11068
Analysis Code	Gamma
Run	1
Date Received	11/11/2011
Lab Deadline	12/5/2011
Client	Weston Solutions, Inc.
Project	0070138 U Mines
Report Level	4
Activity Units	pCi
Aliquot Units	g
Matrix	SO
Method	LANL ER-130 Modified
Instrument Type	Gamma Spectroscopy
Radiometric Tracer	
Radiometric Sol#	
Tracer Act (dpm/g)	
Carrier	
Carrier Conc (mg/ml)	

Internal Fraction	Sample Desc	Client ID	Login CPM	Sample Date	Sample Aliquot
01	LCS	LCS		11/11/11 00:00	1.0000E+00
02	MBL	BLANK		11/11/11 00:00	1.0000E+00
03	DUP	BKGD-E-31-111107	26	11/07/11 15:06	3.8748E+02
04	DO	BKGD-E-31-111107	26	11/07/11 15:06	3.8748E+02
05	TRG	BKGD-N-31-111107	34	11/07/11 15:18	3.8294E+02
06	TRG	BKGD-S-31-111107	35	11/07/11 15:45	3.9631E+02
07	TRG	BKGD-W-31-111107	44	11/07/11 15:25	3.6594E+02
08	TRG	S12-12-31-111107	72	11/07/11 14:20	4.1384E+02
09	TRG	S12-14-31-111107	188	11/07/11 14:25	4.3220E+02
10	TRG	S12-22-31-111107	132	11/07/11 14:40	4.1744E+02
11	TRG	S12-33-31-111107	273	11/07/11 14:14	4.3650E+02
12	TRG	S12-34-31-111107	298	11/07/11 14:12	4.8477E+02
13	TRG	S12-34-32-111107	305	11/07/11 14:12	4.7936E+02
14	TRG	S12-35-31-111107	407	11/07/11 14:10	4.9158E+02
15	TRG	S12-52-31-111107	126	11/07/11 14:56	3.9343E+02
16	TRG	S12-56-31-111107	108	11/07/11 14:49	4.1394E+02
17	TRG	S12-64-31-111107	47	11/07/11 14:52	4.1223E+02

* SAF1 is used for Gross Alpha and all other radionuclides. SAF2 is used for Gross Beta only. ** Actual mass exceeded the calibration curve range. Results should be qualified as appropriate.

Gamma

Run 1

Internal Fraction	Sample Desc	Tracer Aliquot (g)	Tracer Total ACT (dpm)	Radiometric Tracer (pCi)	Radiometric % Rec	Grav Carrier Added (ml)	Grav Filter Tare (g)	Grav Filter Final (g)	Grav Filter Net (g)	Grav % Rec	Mean % Rec	SAF 1*	SAF 2*
01	LCS				0.00								
02	MBL				0.00								
03	DUP				0.00								
04	DO				0.00								
05	TRG				0.00								
06	TRG				0.00								
07	TRG				0.00								
08	TRG				0.00								
09	TRG				0.00								
10	TRG				0.00								
11	TRG				0.00								
12	TRG				0.00								
13	TRG				0.00								
14	TRG				0.00								
15	TRG				0.00								
16	TRG				0.00								
17	TRG				0.00								

* SAF1 is used for Gross Alpha and all other radionuclides. SAF2 is used for Gross Beta only. ** Actual mass exceeded the calibration curve range. Results should be qualified as appropriate.

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<i>Internal Fraction</i>	<i>Sample Desc</i>	<i>Rough Prep Date</i>	<i>Rough Prep By</i>	<i>Prep Date</i>	<i>Prep By</i>	<i>Sep t0 Date/Time</i>	<i>Sep t0 By</i>	<i>Sep t1 Date/Time</i>	<i>Sep t1 By</i>
01	LCS								
02	MBL								
03	DUP								
04	DO	11/15/11 07:27	KSALLINGS						
05	TRG	11/15/11 07:27	KSALLINGS						
06	TRG	11/15/11 07:27	KSALLINGS						
07	TRG	11/15/11 07:27	KSALLINGS						
08	TRG	11/15/11 07:27	KSALLINGS						
09	TRG	11/15/11 07:27	KSALLINGS						
10	TRG	11/15/11 07:27	KSALLINGS						
11	TRG	11/15/11 07:27	KSALLINGS						
12	TRG	11/15/11 07:27	KSALLINGS						
13	TRG	11/15/11 07:27	KSALLINGS						
14	TRG	11/15/11 07:27	KSALLINGS						
15	TRG	11/15/11 07:27	KSALLINGS						
16	TRG	11/15/11 07:27	KSALLINGS						
17	TRG	11/15/11 07:27	KSALLINGS						

* SAF1 is used for Gross Alpha and all other radionuclides. SAF2 is used for Gross Beta only. ** Actual mass exceeded the calibration curve range. Results should be qualified as appropriate.

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Preliminary Data Report & Analytical Calculations
Work Order: 11-11068-Gamma-1

Lab Fraction	Nuclide	Sample Desc	Client Identification	Activity Units	Results	Error Estimate	MDA	LSC Known	LCS %R	LCS Flag	RPD Flag	Sample Date	Sample Aliquot	Counting Date/Time	Identified
01	CO-60	LCS	LCS	pCi/g	1.35E+02	1.02E+01	1.36E+00	1.32E+02	102.51	OK		11/11/11 00:00	1.00E+00	12/11/11 15:40	YES
01	CS-137	LCS	LCS	pCi/g	8.57E+01	8.86E+00	1.10E+00	8.25E+01	103.86	OK		11/11/11 00:00	1.00E+00	12/11/11 15:40	YES
02	AC-228	MBL	BLANK	pCi/g	1.78E-02	5.77E-02	1.12E-01					11/11/11 00:00	1.00E+00	12/11/11 16:48	NO
02	BI-214	MBL	BLANK	pCi/g	8.49E-03	3.67E-02	7.29E-02					11/11/11 00:00	1.00E+00	12/11/11 16:48	NO
02	K-40	MBL	BLANK	pCi/g	1.50E-01	1.77E-01	4.28E-01					11/11/11 00:00	1.00E+00	12/11/11 16:48	NO
02	PA-234M	MBL	BLANK	pCi/g	-7.66E-02	1.52E+00	3.08E+00					11/11/11 00:00	1.00E+00	12/11/11 16:48	NO
02	PB-212	MBL	BLANK	pCi/g	-9.64E-03	2.33E-02	4.32E-02					11/11/11 00:00	1.00E+00	12/11/11 16:48	NO
02	PB-214	MBL	BLANK	pCi/g	3.97E-02	4.41E-02	6.59E-02					11/11/11 00:00	1.00E+00	12/11/11 16:48	NO
02	RA-226	MBL	BLANK	pCi/g	8.49E-03	3.67E-02	7.29E-02					11/11/11 00:00	1.00E+00	12/11/11 16:48	NO
02	TH-234	MBL	BLANK	pCi/g	4.31E-02	3.97E-01	7.38E-01					11/11/11 00:00	1.00E+00	12/11/11 16:48	NO
02	TL-208	MBL	BLANK	pCi/g	4.58E-02	5.48E-02	1.02E-01					11/11/11 00:00	1.00E+00	12/11/11 16:48	NO
03	AC-228	DUP	BKGD-E-31-111107	pCi/g	1.60E+00	4.13E-01	7.04E-01				NA	11/07/11 15:06	3.87E+02	12/11/11 13:21	YES
03	BI-214	DUP	BKGD-E-31-111107	pCi/g	2.93E+01	1.74E+00	3.24E-01				NA	11/07/11 15:06	3.87E+02	12/11/11 13:21	YES
03	K-40	DUP	BKGD-E-31-111107	pCi/g	2.58E+01	3.61E+00	1.81E+00				NA	11/07/11 15:06	3.87E+02	12/11/11 13:21	YES
03	PA-234M	DUP	BKGD-E-31-111107	pCi/g	1.50E+01	1.39E+01	2.09E+01					11/07/11 15:06	3.87E+02	12/11/11 13:21	YES
03	PB-212	DUP	BKGD-E-31-111107	pCi/g	1.27E+00	2.58E-01	3.80E-01					11/07/11 15:06	3.87E+02	12/11/11 13:21	YES
03	PB-214	DUP	BKGD-E-31-111107	pCi/g	3.12E+01	2.10E+00	4.06E-01					11/07/11 15:06	3.87E+02	12/11/11 13:21	YES
03	RA-226	DUP	BKGD-E-31-111107	pCi/g	2.93E+01	1.74E+00	3.24E-01					11/07/11 15:06	3.87E+02	12/11/11 13:21	YES
03	TH-234	DUP	BKGD-E-31-111107	pCi/g	1.45E+01	3.90E+00	4.41E+00					11/07/11 15:06	3.87E+02	12/11/11 13:21	YES
03	TL-208	DUP	BKGD-E-31-111107	pCi/g	1.65E+00	3.14E-01	5.03E-01					11/07/11 15:06	3.87E+02	12/11/11 13:21	YES
04	AC-228	DO	BKGD-E-31-111107	pCi/g	1.86E+00	4.94E-01	7.04E-01					11/07/11 15:06	3.87E+02	12/11/11 14:29	YES
04	BI-212	DO	BKGD-E-31-111107	pCi/g	1.30E+00	9.99E-01	1.28E+00					11/07/11 15:06	3.87E+02	12/11/11 14:29	YES
04	BI-214	DO	BKGD-E-31-111107	pCi/g	3.01E+01	1.77E+00	3.45E-01					11/07/11 15:06	3.87E+02	12/11/11 14:29	YES
04	K-40	DO	BKGD-E-31-111107	pCi/g	2.52E+01	3.60E+00	1.82E+00					11/07/11 15:06	3.87E+02	12/11/11 14:29	YES
04	PA-234M	DO	BKGD-E-31-111107	pCi/g	2.84E+01	2.56E+01	1.93E+01					11/07/11 15:06	3.87E+02	12/11/11 14:29	YES
04	PB-212	DO	BKGD-E-31-111107	pCi/g	1.29E+00	3.09E-01	4.62E-01					11/07/11 15:06	3.87E+02	12/11/11 14:29	NO
04	PB-214	DO	BKGD-E-31-111107	pCi/g	3.06E+01	2.07E+00	3.93E-01					11/07/11 15:06	3.87E+02	12/11/11 14:29	YES
04	RA-226	DO	BKGD-E-31-111107	pCi/g	3.01E+01	1.77E+00	3.45E-01					11/07/11 15:06	3.87E+02	12/11/11 14:29	YES
04	TH-234	DO	BKGD-E-31-111107	pCi/g	1.27E+01	4.33E+00	4.47E+00					11/07/11 15:06	3.87E+02	12/11/11 14:29	YES
04	TL-208	DO	BKGD-E-31-111107	pCi/g	1.56E+00	2.63E-01	4.65E-01					11/07/11 15:06	3.87E+02	12/11/11 14:29	YES
05	AC-228	TRG	BKGD-N-31-111107	pCi/g	2.37E+00	3.68E-01	4.08E-01					11/07/11 15:18	3.83E+02	12/11/11 13:22	YES
05	BI-214	TRG	BKGD-N-31-111107	pCi/g	2.40E+00	3.26E-01	2.09E-01					11/07/11 15:18	3.83E+02	12/11/11 13:22	YES
05	K-40	TRG	BKGD-N-31-111107	pCi/g	2.78E+01	3.84E+00	1.03E+00					11/07/11 15:18	3.83E+02	12/11/11 13:22	YES
05	PA-234M	TRG	BKGD-N-31-111107	pCi/g	3.93E+00	7.28E+00	1.35E+01					11/07/11 15:18	3.83E+02	12/11/11 13:22	NO
05	PB-212	TRG	BKGD-N-31-111107	pCi/g	2.49E+00	2.85E-01	1.59E-01					11/07/11 15:18	3.83E+02	12/11/11 13:22	YES
05	PB-214	TRG	BKGD-N-31-111107	pCi/g	2.51E+00	2.64E-01	2.03E-01					11/07/11 15:18	3.83E+02	12/11/11 13:22	YES
05	RA-226	TRG	BKGD-N-31-111107	pCi/g	2.40E+00	3.26E-01	2.09E-01					11/07/11 15:18	3.83E+02	12/11/11 13:22	YES
05	TH-234	TRG	BKGD-N-31-111107	pCi/g	1.77E+00	1.41E+00	2.48E+00					11/07/11 15:18	3.83E+02	12/11/11 13:22	NO

05
05
05

Preliminary Data Report & Analytical Calculations
Work Order: 11-11068-Gamma-1

Lab Fraction	Nuclide	Sample Desc	Client Identification	Activity Units	Results	Error Estimate	MDA	LSC Known	LCS %R	LCS Flag	RPD Flag	Sample Date	Sample Aliquot	Counting Date/Time	Identified
14	PA-234M	TRG	S12-35-31-111107	pCi/g	2.93E+02	1.01E+02	9.88E+01					11/07/11 14:10	4.92E+02	12/11/11 16:16	YES
14	PB-212	TRG	S12-35-31-111107	pCi/g	1.82E+01	2.11E+00	1.90E+00					11/07/11 14:10	4.92E+02	12/11/11 16:16	NO
14	PB-214	TRG	S12-35-31-111107	pCi/g	2.40E+02	1.95E+01	1.90E+00					11/07/11 14:10	4.92E+02	12/11/11 16:16	YES
14	RA-226	TRG	S12-35-31-111107	pCi/g	2.41E+02	1.38E+01	1.63E+00					11/07/11 14:10	4.92E+02	12/11/11 16:16	YES
14	TH-234	TRG	S12-35-31-111107	pCi/g	2.37E+02	2.50E+01	2.03E+01					11/07/11 14:10	4.92E+02	12/11/11 16:16	YES
14	TL-208	TRG	S12-35-31-111107	pCi/g	2.56E+00	1.82E+00	2.63E+00					11/07/11 14:10	4.92E+02	12/11/11 16:16	NO
15	AC-228	TRG	S12-52-31-111107	pCi/g	1.10E+00	5.48E-01	8.88E-01					11/07/11 14:56	3.93E+02	12/11/11 16:44	YES
15	BI-214	TRG	S12-52-31-111107	pCi/g	5.56E+01	3.53E+00	4.42E-01					11/07/11 14:56	3.93E+02	12/11/11 16:44	YES
15	K-40	TRG	S12-52-31-111107	pCi/g	3.29E+01	4.48E+00	2.25E+00					11/07/11 14:56	3.93E+02	12/11/11 16:44	YES
15	PA-234M	TRG	S12-52-31-111107	pCi/g	8.71E+01	2.78E+01	2.61E+01					11/07/11 14:56	3.93E+02	12/11/11 16:44	YES
15	PB-212	TRG	S12-52-31-111107	pCi/g	1.11E+00	3.52E-01	4.60E-01					11/07/11 14:56	3.93E+02	12/11/11 16:44	YES
15	PB-214	TRG	S12-52-31-111107	pCi/g	5.80E+01	3.84E+00	5.37E-01					11/07/11 14:56	3.93E+02	12/11/11 16:44	YES
15	RA-226	TRG	S12-52-31-111107	pCi/g	5.56E+01	3.53E+00	4.42E-01					11/07/11 14:56	3.93E+02	12/11/11 16:44	YES
15	TH-234	TRG	S12-52-31-111107	pCi/g	9.26E+01	9.76E+00	6.39E+00					11/07/11 14:56	3.93E+02	12/11/11 16:44	YES
15	TL-208	TRG	S12-52-31-111107	pCi/g	7.07E-01	2.26E-01	6.91E-01					11/07/11 14:56	3.93E+02	12/11/11 16:44	YES
16	AC-228	TRG	S12-56-31-111107	pCi/g	1.59E+00	1.04E+00	1.14E+00					11/07/11 14:49	4.14E+02	12/11/11 16:46	NO
16	BI-214	TRG	S12-56-31-111107	pCi/g	7.03E+01	3.92E+00	4.76E-01					11/07/11 14:49	4.14E+02	12/11/11 16:46	YES
16	K-40	TRG	S12-56-31-111107	pCi/g	2.90E+01	4.91E+00	2.69E+00					11/07/11 14:49	4.14E+02	12/11/11 16:46	YES
16	PA-234M	TRG	S12-56-31-111107	pCi/g	5.17E+01	2.58E+01	3.04E+01					11/07/11 14:49	4.14E+02	12/11/11 16:46	YES
16	PB-212	TRG	S12-56-31-111107	pCi/g	1.35E+00	3.74E-01	4.93E-01					11/07/11 14:49	4.14E+02	12/11/11 16:46	YES
16	PB-214	TRG	S12-56-31-111107	pCi/g	7.25E+01	4.94E+00	5.75E-01					11/07/11 14:49	4.14E+02	12/11/11 16:46	YES
16	RA-226	TRG	S12-56-31-111107	pCi/g	7.03E+01	3.92E+00	4.76E-01					11/07/11 14:49	4.14E+02	12/11/11 16:46	YES
16	TH-234	TRG	S12-56-31-111107	pCi/g	4.10E+01	7.00E+00	6.62E+00					11/07/11 14:49	4.14E+02	12/11/11 16:46	YES
16	TL-208	TRG	S12-56-31-111107	pCi/g	1.03E+00	2.47E-01	7.27E-01					11/07/11 14:49	4.14E+02	12/11/11 16:46	YES
17	AC-228	TRG	S12-64-31-111107	pCi/g	2.16E+00	4.24E-01	4.78E-01					11/07/11 14:52	4.12E+02	12/11/11 19:41	YES
17	BI-214	TRG	S12-64-31-111107	pCi/g	1.31E+01	8.88E-01	2.42E-01					11/07/11 14:52	4.12E+02	12/11/11 19:41	YES
17	K-40	TRG	S12-64-31-111107	pCi/g	2.64E+01	3.48E+00	1.33E+00					11/07/11 14:52	4.12E+02	12/11/11 19:41	YES
17	PA-234M	TRG	S12-64-31-111107	pCi/g	1.39E+01	1.28E+01	1.35E+01					11/07/11 14:52	4.12E+02	12/11/11 19:41	YES
17	PB-212	TRG	S12-64-31-111107	pCi/g	2.06E+00	2.77E-01	2.25E-01					11/07/11 14:52	4.12E+02	12/11/11 19:41	YES
17	PB-214	TRG	S12-64-31-111107	pCi/g	1.32E+01	9.34E-01	2.68E-01					11/07/11 14:52	4.12E+02	12/11/11 19:41	YES
17	RA-226	TRG	S12-64-31-111107	pCi/g	1.31E+01	8.88E-01	2.42E-01					11/07/11 14:52	4.12E+02	12/11/11 19:41	YES
17	TH-234	TRG	S12-64-31-111107	pCi/g	1.18E+01	3.07E+00	3.09E+00					11/07/11 14:52	4.12E+02	12/11/11 19:41	YES
17	TL-208	TRG	S12-64-31-111107	pCi/g	1.85E+00	2.73E-01	3.71E-01					11/07/11 14:52	4.12E+02	12/11/11 19:41	YES

1 HR

QE1

Internal Fraction	Sample Desc	Client ID	Sample Date	Sample Aliquot	Tracer Aliquot (g)	Tracer ACT (dpm)	Radiometric Tracer (pCi)	Radiometric % Rec	SAF 1*	SAF 2*
01	LCS	LCS	11/11/11 00:00	1.0000				0.00		
02	MBL	BLANK	11/11/11 00:00	1.0000				0.00		
03	DUP	BKGD-E-31-111107	11/07/11 15:06	387.4800				0.00		
04	DO	BKGD-E-31-111107	11/07/11 15:06	387.4800				0.00		
05	TRG	BKGD-N-31-111107	11/07/11 15:18	382.9400				0.00		
06	TRG	BKGD-S-31-111107	11/07/11 15:45	396.3100				0.00		
07	TRG	BKGD-W-31-111107	11/07/11 15:25	365.9400				0.00		
08	TRG	S12-12-31-111107	11/07/11 14:20	413.8400				0.00		
09	TRG	S12-14-31-111107	11/07/11 14:25	432.2000				0.00		
10	TRG	S12-22-31-111107	11/07/11 14:40	417.4400				0.00		
11	TRG	S12-33-31-111107	11/07/11 14:14	436.5000				0.00		
12	TRG	S12-34-31-111107	11/07/11 14:12	484.7700				0.00		
13	TRG	S12-34-32-111107	11/07/11 14:12	479.3600				0.00		
14	TRG	S12-35-31-111107	11/07/11 14:10	491.5800				0.00		
15	TRG	S12-52-31-111107	11/07/11 14:56	393.4300				0.00		
16	TRG	S12-56-31-111107	11/07/11 14:49	413.9400				0.00		
17	TRG	S12-64-31-111107	11/07/11 14:52	412.2300				0.00		

0049

Aliquot Worksheet

Work Order	Run	Analysis Code	Rpt Units	Lab Deadline	Technician
11-11068	1	Gamma	grams	12/5/2011	KSALLINGS

Lab Fraction	Weston Solutions, Inc. Client ID	Sample Type	Muffle Data Ratio Post/Pre	Dilution Data			Aliquot Data		MS Aliquot Data		H-3 Solids Only	
				No of Dils	Dil Factor	Ratio	Aliquot	Net Equiv	Aliquot	Net Equiv	Water Added (ml)	H3 Dist Aliq
01	LCS	LCS					1.0000E+00	1.0000E+00				
02	BLANK	MBL					1.0000E+00	1.0000E+00				
03	BKGD-E-31-111107	DUP					3.8748E+02	3.8748E+02				
04	BKGD-E-31-111107	DO					3.8748E+02	3.8748E+02				
05	BKGD-N-31-111107	TRG					3.8294E+02	3.8294E+02				
06	BKGD-S-31-111107	TRG					3.9631E+02	3.9631E+02				
07	BKGD-W-31-111107	TRG					3.6594E+02	3.6594E+02				
08	S12-12-31-111107	TRG					4.1384E+02	4.1384E+02				
09	S12-14-31-111107	TRG					4.3220E+02	4.3220E+02				
10	S12-22-31-111107	TRG					4.1744E+02	4.1744E+02				
11	S12-33-31-111107	TRG					4.3650E+02	4.3650E+02				
12	S12-34-31-111107	TRG					4.8477E+02	4.8477E+02				
13	S12-34-32-111107	TRG					4.7936E+02	4.7936E+02				
14	S12-35-31-111107	TRG					4.9158E+02	4.9158E+02				
15	S12-52-31-111107	TRG					3.9343E+02	3.9343E+02				
16	S12-56-31-111107	TRG					4.1394E+02	4.1394E+02				
17	S12-64-31-111107	TRG					4.1223E+02	4.1223E+02				

Comments	
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Technician: Kerry Selig Date: 11/15/11



**Rough Sample Preparation
 Log Book**

Work Order	Lab Deadline	Date Received in Prep	Date Sealed	Date Returned	Technician
11-11068	12/5/2011	11/14/2011	11/15/2011	11/16/2011	KSALLINGS

Eberline Fraction	Weston Solutions, Inc. Client ID	Tare (g)	Gross (g)		Net (g)		Percent		Gamma		Special Info
		Pan Wt	Wet Wt.	Dry Wt.	Wet Wt.	Dry Wt.	Liquid	Solid	Dry Wt.	LEPS Wt.	
04	BKGD-E-31-111107	13.6500	432.2300	405.4800	418.5800	391.8300	6.39%	93.61%	0.0000	0.0000	
05	BKGD-N-31-111107	13.5700	425.3900	400.3800	411.8200	386.8100	6.07%	93.93%	0.0000	0.0000	
06	BKGD-S-31-111107	13.6900	445.8800	416.7100	432.1900	403.0200	6.75%	93.25%	0.0000	0.0000	
07	BKGD-W-31-111107	13.7300	416.6900	384.0000	402.9600	370.2700	8.11%	91.89%	0.0000	0.0000	
08	S12-12-31-111107	13.6500	448.7600	429.7000	435.1100	416.0500	4.38%	95.62%	0.0000	0.0000	
09	S12-14-31-111107	13.7400	478.8700	462.3900	465.1300	448.6500	3.54%	96.46%	0.0000	0.0000	
10	S12-22-31-111107	13.6100	460.3800	441.3400	446.7700	427.7300	4.26%	95.74%	0.0000	0.0000	
11	S12-33-31-111107	13.6100	488.7700	471.6700	475.1600	458.0600	3.60%	96.40%	0.0000	0.0000	
12	S12-34-31-111107	13.6100	545.3600	527.4000	531.7500	513.7900	3.38%	96.62%	0.0000	0.0000	
13	S12-34-32-111107	13.7000	532.5800	514.7900	518.8800	501.0900	3.43%	96.57%	0.0000	0.0000	
14	S12-35-31-111107	13.6300	529.9400	519.2600	516.3100	505.6300	2.07%	97.93%	0.0000	0.0000	
15	S12-52-31-111107	13.6900	452.2500	424.4400	438.5600	410.7500	6.34%	93.66%	0.0000	0.0000	
16	S12-56-31-111107	13.5400	460.0000	441.5000	446.4600	427.9600	4.14%	95.86%	0.0000	0.0000	
17	S12-64-31-111107	13.5000	469.9500	429.0400	456.4500	415.5400	8.96%	91.04%	0.0000	0.0000	

Comments	
Special Codes	H: Hot, O: Organic Hazard, P: PCB Hazard, R: Rush, T: Other (see comments)

Technician: Kenny Self

Date: Analysis: Rough Prep Logbook

Analysis: Gamma Page No. 7820

7820

Sample ID : 1111068-01

Acquisition date : 11-DEC-2011 15:40:21

VAX/VMS Peak Search Report Generated 11-DEC-2011 16:11:03.74

AG
12/11/11

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Configuration      : DKA100: [GAMMA.SCUSR.ARCHIVE] SMP_111106801_GE4_GAS1102_172294.
Analyses by       : PEAK V16.9 ENBACK V1.6 PEAKEFF V2.2
Client ID        : GAS-1002
Deposition Date   :
Sample Date      : 1-JAN-2010 00:00:00. Acquisition date : 11-DEC-2011 15:40:21
Sample ID       : 1111068-01 Sample Quantity : 7.36000E+02 GRAM
Sample type     : SOIL Sample Geometry : 0
Detector name   : GE4 Detector Geometry: GAS-1102
Elapsed live time: 0 00:30:00.00 Elapsed real time: 0 00:30:23.23 1.3%
Start channel   : 5 End channel : 4096
Sensitivity     : 2.40000 Gaussian : 15.00000
Critical level  : Yes
  
```

Post-NID Peak Search Report

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides
0	22.49	91587	36084	2.12	21.81	19	7	0.9		
0	32.12	1212	5216	1.93	31.45	30	6	19.6		
6	50.96	7910	16742	3.51	50.30	44	19	7.0	3.88E+02	
6	55.73	9602	15755	3.53	55.08	44	19	7.6		
6	59.66	61749	9244	2.32	59.01	44	19	1.0		AM-241
10	69.84	2608	12589	5.20	69.20	64	29	15.9	1.34E+02	
10	88.15	32881	5722	2.12	87.52	64	29	1.3		SN-126 CD-109
2	119.00	297	2312	1.83	118.39	117	9	43.0	4.62E+00	
2	122.27	7064	3561	1.82	121.66	117	9	3.5		CO-57
0	135.99	1196	6549	2.00	135.40	130	11	26.9		CO-57
0	148.00	185	3455	3.17	147.42	145		6101.2		
0	165.92	1345	4657	2.04	165.35	162	8	18.4		CE-139
0	391.51	291	2731	1.85	391.10	388	8	63.4		SN-113
0	485.23	124	1437	3.12	484.89	483	6	98.2		
0	548.02	97	1116	3.80	547.72	545		6111.4		
0	661.88	12656	1901	2.19	661.67	656	12	2.3		CS-137
0	701.73	123	725	2.07	701.55	699	6	71.7		
0	708.19	94	1047	2.77	708.01	705		8121.2		
0	862.50	118	929	2.89	862.43	860	6	83.7		
1	895.29	81	530	2.18	895.24	894	9	76.9	8.90E+00	
1	898.29	419	1416	2.67	898.24	894	9	32.7		Y-88
0	962.95	123	1481	3.42	962.95	960		8110.4		
0	1173.55	10774	895	2.46	1173.70	1168	12	2.2		CO-60
0	1293.54	29	107	1.99	1293.78	1291		6119.2		
0	1332.76	10059	235	2.44	1333.03	1326	14	2.1		CO-60
0	1400.03	16	27	2.79	1400.34	1397		6114.2		
0	1530.74	16	29	3.65	1531.15	1528		7125.6		
0	1836.37	213	24	2.16	1837.01	1831	12	16.5		Y-88
0	1846.98	15	21	6.54	1847.62	1842		10126.7		
0	1887.98	35	8	11.67	1888.65	1882	15	48.4		
0	1949.99	25	8	1.29	1950.71	1945	12	60.9		
0	2001.49	16	16	2.95	2002.24	1994		14121.1		
0	2194.47	11	0	2.31	2195.36	2192	7	60.3		
0	2224.99	12	3	2.71	2225.90	2219	12	81.4		
0	2400.79	5	1	1.44	2401.83	2399		6118.9		

AG
12/12/11

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides
0	2505.90	57	0	3.92	2507.02	2500	12	26.5		
0	2615.41*	11	2	3.61	2616.61	2611	9	82.2		

Summary of Nuclide Activity

Sample ID : 1111068-01

Acquisition date : 11-DEC-2011 15:40:21

Total number of lines in spectrum 37
 Number of unidentified lines 20
 Number of lines tentatively identified by NID 17 45.95%

Nuclide Type : FISSION

Nuclide	Hlife	Decay	Wtd Mean		Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
			Uncorrected pCi/GRAM	Decay Corr pCi/GRAM			
CO-57	270.90D	6.15	1.109E+01	6.818E+01	0.685E+01	10.05	
Y-88	106.60D	101.	2.919E+00	2.946E+02	0.494E+02	16.77	
CD-109	464.00D	2.89	1.065E+03	3.075E+03	0.384E+03	12.48	
SN-113	115.10D	71.8	1.438E+00	1.032E+02	0.670E+02	64.93	
SN-126	1.00E+05Y	1.00	1.071E+02	1.071E+02	0.117E+02	10.93	
CS-137	30.17Y	1.05	8.193E+01	8.567E+01	0.886E+01	10.34	
CE-139	137.66D	35.6	2.569E+00	9.153E+01	1.895E+01	20.71	
Total Activity :			1.272E+03	3.826E+03			

Nuclide Type : ACTIVATION

Nuclide	Hlife	Decay	Wtd Mean		Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
			Uncorrected pCi/GRAM	Decay Corr pCi/GRAM			
CO-60	5.27Y	1.29	1.046E+02	1.350E+02	0.102E+02	7.57	
Total Activity :			1.046E+02	1.350E+02			

Nuclide Type : NATURAL

Nuclide	Hlife	Decay	Wtd Mean		Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
			Uncorrected pCi/GRAM	Decay Corr pCi/GRAM			
AM-241	432.20Y	1.00	2.185E+02	2.192E+02	0.184E+02	8.37	
Total Activity :			2.185E+02	2.192E+02			

Grand Total Activity : 1.595E+03 4.180E+03

Flags: "K" = Keyline not found
 "E" = Manually edited

"M" = Manually accepted
 "A" = Nuclide specific abn. limit

Nuclide Type: FISSION

Nuclide	Energy	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error	Status
CO-57	122.06	85.51*	1.560E+00	1.080E+01	6.638E+01	10.66	OK
	136.48	10.60	1.484E+00	1.551E+01	9.534E+01	28.82	OK
Final Mean for 2 Valid Peaks = 6.818E+01+/- 6.854E+00 (10.05%)							
Y-88	898.02	93.40	2.732E-01	3.348E+00	3.380E+02	35.51	OK
	1836.01	99.38*	1.544E-01	2.831E+00	2.858E+02	18.97	OK
Final Mean for 2 Valid Peaks = 2.946E+02+/- 4.940E+01 (16.77%)							
CD-109	88.03	3.72*	1.693E+00	1.065E+03	3.075E+03	12.48	OK
Final Mean for 1 Valid Peaks = 3.075E+03+/- 3.838E+02 (12.48%)							
SN-113	255.12	1.93	9.553E-01	----- Line Not Found		-----	Absent
	391.69	64.90*	6.351E-01	1.438E+00	1.032E+02	64.93	OK
Final Mean for 1 Valid Peaks = 1.032E+02+/- 6.703E+01 (64.93%)							
SN-126	87.57	37.00*	1.693E+00	1.071E+02	1.071E+02	10.93	OK
Final Mean for 1 Valid Peaks = 1.071E+02+/- 1.170E+01 (10.93%)							
CS-137	661.65	85.12*	3.702E-01	8.193E+01	8.567E+01	10.34	OK
Final Mean for 1 Valid Peaks = 8.567E+01+/- 8.856E+00 (10.34%)							
CE-139	165.85	80.35*	1.329E+00	2.569E+00	9.153E+01	20.71	OK
Final Mean for 1 Valid Peaks = 9.153E+01+/- 1.895E+01 (20.71%)							

Nuclide Type: ACTIVATION

Nuclide	Energy	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error	Status
CO-60	1173.22	100.00*	2.143E-01	1.026E+02	1.324E+02	11.27	OK
	1332.49	100.00	1.929E-01	1.064E+02	1.373E+02	10.21	OK
Final Mean for 2 Valid Peaks = 1.350E+02+/- 1.022E+01 (7.57%)							

Nuclide Type: NATURAL

Nuclide	Energy	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error	Status
AM-241	59.54	35.90*	1.606E+00	2.185E+02	2.192E+02	8.37	OK
Final Mean for 1 Valid Peaks = 2.192E+02+/- 1.835E+01 (8.37%)							

Nuclide Line Activity Report (continued)
Sample ID : 1111068-01

Page : 5
Acquisition date : 11-DEC-2011 15:40:21

Flag: "*" = Keyline

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CO-57	6.818E+01	6.854E+00	2.962E+00	2.740E-01	23.018
CO-60	1.350E+02	1.022E+01	1.364E+00	1.404E-01	99.039
Y-88	2.946E+02	4.940E+01	3.427E+01	2.895E+00	8.598
CD-109	3.075E+03	3.838E+02	3.273E+01	3.845E+00	93.956
SN-113	1.032E+02	6.703E+01	7.772E+01	1.040E+01	1.328
SN-126	1.071E+02	1.170E+01	1.139E+00	1.149E-01	93.967
CS-137	8.567E+01	8.856E+00	1.098E+00	1.017E-01	78.026
CE-139	9.153E+01	1.895E+01	1.927E+01	1.653E+00	4.750
AM-241	2.192E+02	1.835E+01	1.476E+00	1.077E-01	148.447

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NA-22	-8.641E-02		5.841E-01	1.010E+00	9.737E-02	-0.086
AL-26	2.834E-03		1.538E-01	2.890E-01	2.465E-02	0.010
K-40	9.864E-01		2.099E+00	3.919E+00	3.684E-01	0.252
TI-44	6.042E+00		6.479E-01	6.216E-01	4.960E-02	9.720
MN-54	9.234E-01		3.203E+00	5.515E+00	6.736E-01	0.167
ZN-65	1.065E+01		1.171E+01	2.020E+01	2.265E+00	0.527
SE-75	-3.435E-01		3.427E+01	5.582E+01	5.239E+00	-0.006
KR-85	9.310E+01		1.303E+02	2.119E+02	2.678E+01	0.439
NB-93M	3.429E+02		1.424E+02	3.140E+01	1.289E+01	10.921
NB-94	2.112E-01		8.054E-01	1.223E+00	1.571E-01	0.173
RU-106	-6.389E+00		2.054E+01	3.273E+01	4.798E+00	-0.195
AG-108M	-3.663E-01		6.085E-01	1.033E+00	1.062E-01	-0.355
AG-110M	1.391E+02		1.565E+01	1.324E+01	1.242E+00	10.503
TE123M	-8.460E+00		2.114E+01	3.074E+01	2.674E+00	-0.275
SB-125	1.015E+00		2.612E+00	4.241E+00	5.644E-01	0.239
I-129	-1.244E+02		1.743E+01	1.507E+00	1.997E-01	-82.529
BA-133	2.155E-01		7.431E-01	1.210E+00	1.872E-01	0.178
CS-134	-4.452E-02		1.028E+00	1.651E+00	1.811E-01	-0.027
CS-135	-8.104E-01		2.123E+00	3.437E+00	3.205E-01	-0.236
LA-138	1.079E-01		2.903E-01	5.466E-01	5.018E-02	0.197
CE-144	4.778E+01		1.383E+01	2.223E+01	2.012E+00	2.149
PM-144	-6.209E-01		2.253E+00	3.402E+00	4.882E-01	-0.183
PM-145	-1.040E+01		7.165E+00	3.096E+00	2.025E+00	-3.360
PM-146	6.512E-01		1.608E+00	2.607E+00	3.413E-01	0.250
EU-152	1.968E+00		1.732E+00	3.112E+00	3.538E-01	0.633
GD-153	-3.550E+00		8.409E+00	1.379E+01	1.332E+00	-0.257
EU-154	1.072E-01		1.129E+00	1.979E+00	1.908E-01	0.054
EU-155	1.647E+02		1.780E+01	4.634E+00	4.612E-01	35.543
HO-166M	-5.346E-01		1.111E+00	1.665E+00	1.680E-01	-0.321
HF-172	5.224E+01		8.379E+00	8.852E+00	8.105E-01	5.902
LU-173	5.742E-01		4.280E+00	6.983E+00	6.513E-01	0.082
LU-176	3.195E-01		3.790E-01	6.216E-01	6.337E-02	0.514
TA-182	-4.983E+01		1.540E+02	2.604E+02	2.894E+01	-0.191
BI-207	-2.553E-01		5.323E-01	8.463E-01	9.942E-02	-0.302

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TL-208	-6.237E-01		1.657E+00	2.641E+00	3.027E-01	-0.236
BI-210M	2.114E-01		7.455E-01	1.219E+00	1.136E-01	0.173
PB-210	1.923E+02		2.128E+01	1.993E+01	1.659E+00	9.651
PB-211	-3.034E+00		1.512E+01	2.437E+01	3.187E+00	-0.124
BI-212	2.330E+00		4.616E+00	8.014E+00	8.298E-01	0.291
PB-212	6.751E-01		7.528E-01	1.237E+00	1.142E-01	0.546
BI-214	3.571E-01		1.120E+00	1.813E+00	1.963E-01	0.197
PB-214	-4.661E-02		1.047E+00	1.698E+00	1.982E-01	-0.027
RN-219	-3.416E+00		7.105E+00	1.081E+01	1.412E+00	-0.316
RA-223	5.938E+00		9.464E+00	1.549E+01	1.665E+00	0.383
RA-224	5.240E+00		8.452E+00	1.387E+01	1.282E+00	0.378
RA-226	8.355E+00		1.760E+01	1.441E+01	2.638E+01	0.580
TH-227	-5.822E-01		2.931E+00	4.767E+00	4.393E-01	-0.122
AC-228	-1.398E+00		2.848E+00	4.809E+00	6.371E-01	-0.291
TH-230	1.488E+03		1.600E+02	1.548E+02	1.233E+01	9.609
PA-231	-8.778E+00		1.553E+01	2.499E+01	2.515E+00	-0.351
TH-231	9.620E+02		1.653E+02	2.260E+01	3.765E+00	42.570
PA-234	-3.263E-02		1.694E+00	1.961E+00	1.781E-01	-0.017
PA-234M	2.830E+01		8.470E+01	1.452E+02	1.826E+01	0.195
TH-234	4.449E+02		4.052E+01	2.220E+01	1.684E+00	20.043
U-235	-9.230E-02		3.279E+00	3.790E+00	6.690E-01	-0.024
NP-237	3.080E+02		3.329E+01	8.663E+00	8.622E-01	35.547
AM-243	8.041E+00		9.110E-01	8.520E-01	7.355E-02	9.438
CM-243	-1.767E+00		2.573E+00	4.138E+00	3.859E-01	-0.427

Summary of Nuclide Activity

Sample ID : 1111068-01

Acquisition date : 11-DEC-2011 15:40:21

Total number of lines in spectrum 37
 Number of unidentified lines 20
 Number of lines tentatively identified by NID 17 45.95%

Nuclide Type : FISSION

Nuclide	Hlife	Decay	Wtd Mean		Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
			Uncorrected pCi/GRAM	Decay Corr pCi/GRAM			
CO-57	270.90D	6.15	1.109E+01	6.818E+01	0.685E+01	10.05	
Y-88	106.60D	101.	2.919E+00	2.946E+02	0.494E+02	16.77	
CD-109	464.00D	2.89	1.065E+03	3.075E+03	0.384E+03	12.48	
SN-113	115.10D	71.8	1.438E+00	1.032E+02	0.670E+02	64.93	
SN-126	1.00E+05Y	1.00	1.071E+02	1.071E+02	0.117E+02	10.93	
CS-137	30.17Y	1.05	8.193E+01	8.567E+01	0.886E+01	10.34	
CE-139	137.66D	35.6	2.569E+00	9.153E+01	1.895E+01	20.71	
Total Activity :			1.272E+03	3.826E+03			

Nuclide Type : ACTIVATION

Nuclide	Hlife	Decay	Wtd Mean		Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
			Uncorrected pCi/GRAM	Decay Corr pCi/GRAM			
CO-60	5.27Y	1.29	1.046E+02	1.350E+02	0.102E+02	7.57	
Total Activity :			1.046E+02	1.350E+02			

Nuclide Type : NATURAL

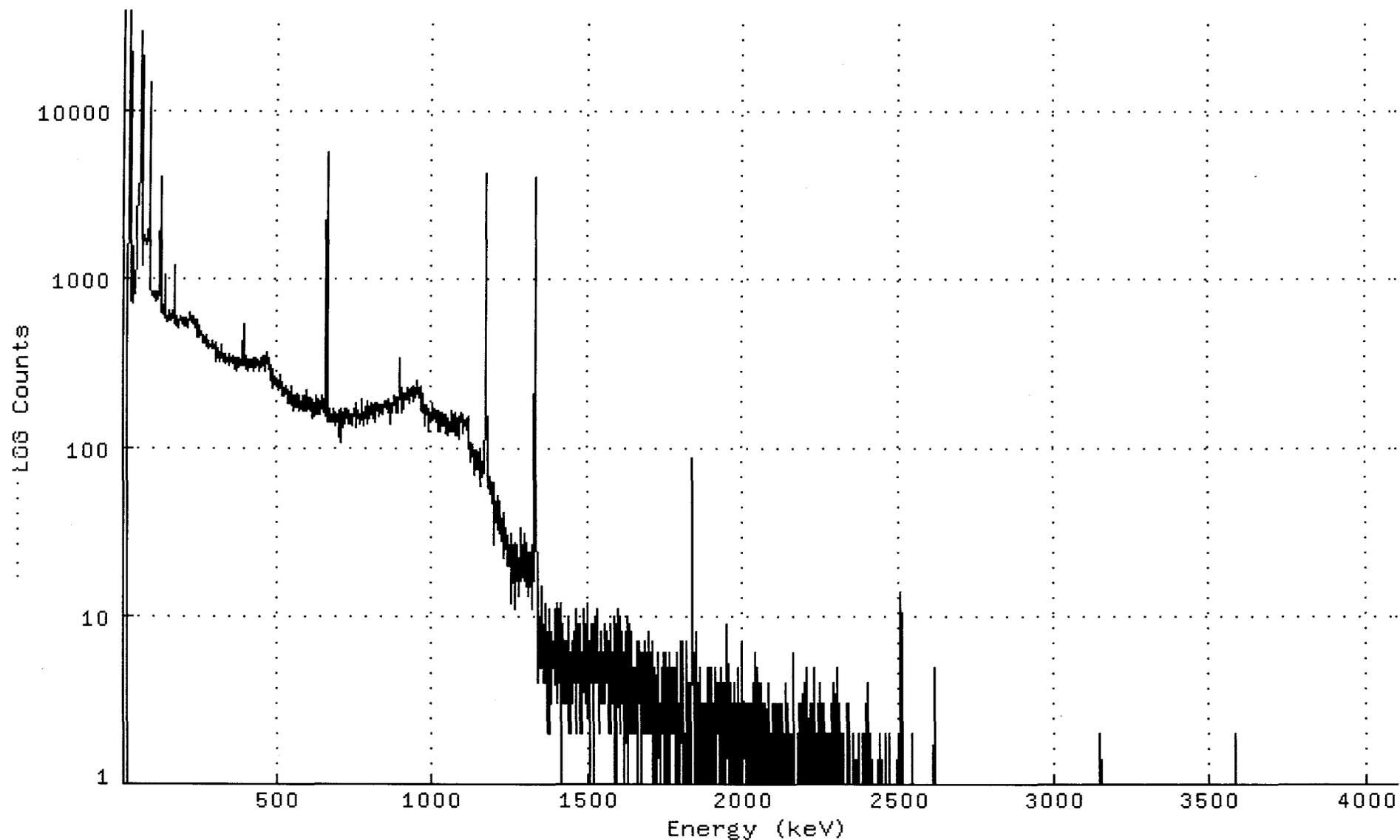
Nuclide	Hlife	Decay	Wtd Mean		Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
			Uncorrected pCi/GRAM	Decay Corr pCi/GRAM			
AM-241	432.20Y	1.00	2.185E+02	2.192E+02	0.184E+02	8.37	
Total Activity :			2.185E+02	2.192E+02			

Grand Total Activity : 1.595E+03 4.180E+03

Flags: "K" = Keyline not found
 "E" = Manually edited

"M" = Manually accepted
 "A" = Nuclide specific abn. limit

Spectrum : DKA100:[GAMMA.SCUSR.ARCHIVE]SMP_111106801_GE4_GAS1102_172294.CNF;1
Title :
Sample Title: GAS-1002
Start Time: 11-DEC-2011 15:40 Sample Time: 1-JAN-2010 00:00: Energy Offset: 6.91748E-01
Real Time : 0 00:30:23.23 Sample ID : 1111068-01 Energy Slope : 9.99279E-01
Live Time : 0 00:30:00.00 Sample Type: SOIL Energy Quad : 0.00000E+00



Channel Contents for DKA100: [GAMMA.SCUSR.ARCHIVE] SMP_111106801_GE4_GAS1102_1722

Channel

1:	0	0	0	0	0	0	0	0
9:	0	0	0	0	0	13	975	1481
17:	1691	1644	2477	10104	37589	39547	12536	13505
25:	11913	3256	902	727	719	836	1250	1535
33:	1097	892	818	1041	982	960	948	1015
41:	1181	1348	1498	1668	1696	1852	2326	2994
49:	3472	3487	3504	3473	3490	3806	3855	4126
57:	4750	14380	28684	15400	2210	1206	1243	1403
65:	1488	1731	1722	1797	1666	1721	1669	1580
73:	1630	1645	1647	1692	1658	1650	1683	1679
81:	1693	1778	1873	1977	1933	3605	12999	14378
89:	3992	874	793	787	784	806	829	783
97:	772	795	759	821	779	805	747	743
105:	739	771	829	790	746	800	835	783
113:	745	827	815	793	783	897	789	1124
121:	3238	4019	1463	684	622	668	651	625
129:	620	617	655	687	649	673	795	1050
137:	842	632	589	556	596	580	573	560
145:	570	601	646	614	640	569	598	586
153:	572	614	605	563	560	587	586	586
161:	606	572	625	672	1191	1174	674	535
169:	559	595	568	524	540	563	550	540
177:	564	517	513	556	562	557	574	560
185:	597	569	582	593	577	559	542	574
193:	576	570	560	527	578	586	533	525
201:	577	529	542	584	553	522	532	507
209:	563	521	554	548	566	578	572	583
217:	576	624	582	598	568	595	595	549
225:	551	545	595	530	554	591	536	558
233:	522	541	511	524	517	562	526	493
241:	553	487	448	462	446	496	449	522
249:	469	456	469	485	477	465	482	430
257:	413	451	425	464	442	446	441	418
265:	424	435	424	411	442	403	413	458
273:	405	396	380	403	405	393	424	393
281:	409	406	400	406	398	394	396	424
289:	412	387	405	383	385	392	403	398
297:	389	400	381	373	322	335	410	372
305:	371	362	384	333	363	386	370	333
313:	365	349	352	355	323	338	341	334
321:	401	346	352	327	354	322	337	348
329:	330	335	337	356	312	313	335	336
337:	324	324	328	333	341	311	354	321
345:	346	328	304	323	325	317	319	335
353:	329	323	326	326	311	334	316	346
361:	292	314	339	337	296	311	339	318
369:	285	311	335	315	322	325	296	332
377:	341	305	327	327	321	303	312	327
385:	315	303	341	343	320	342	533	518
393:	337	308	321	361	327	287	315	318
401:	293	305	319	284	326	319	279	290
409:	306	320	301	321	326	294	324	315
417:	320	314	297	325	299	317	285	285
425:	284	339	308	337	312	341	293	310

433:	332	311	329	309	318	301	315	296
441:	323	313	323	316	283	321	306	299
449:	308	336	314	294	321	327	330	303
457:	343	302	306	337	336	280	343	314
465:	365	328	314	325	322	344	328	318
473:	287	289	305	312	302	300	250	264
481:	276	252	255	292	271	271	250	222
489:	238	263	247	244	236	233	245	227
497:	253	251	228	234	253	234	226	233
505:	219	236	239	258	222	259	268	263
513:	245	213	239	206	231	203	234	205
521:	205	214	221	205	204	210	210	223
529:	231	232	205	206	219	201	196	182
537:	191	204	193	201	212	194	181	214
545:	196	232	192	209	203	181	165	200
553:	201	204	194	181	178	189	197	199
561:	172	188	174	207	199	179	200	187
569:	200	177	163	175	172	200	193	167
577:	182	188	167	183	175	177	170	167
585:	188	166	200	165	183	178	178	197
593:	201	192	163	217	183	171	175	173
601:	189	188	181	194	168	178	165	164
609:	173	196	189	166	189	146	188	146
617:	183	177	169	181	165	167	184	152
625:	170	201	174	156	170	170	156	174
633:	193	159	183	160	169	165	155	163
641:	175	187	169	175	171	177	183	201
649:	169	170	159	189	177	190	151	177
657:	178	171	217	1158	4269	5534	2070	345
665:	147	150	141	166	150	170	144	153
673:	139	157	147	155	144	148	140	153
681:	157	156	146	142	167	150	150	132
689:	155	156	134	154	146	140	149	153
697:	155	132	115	166	157	139	140	131
705:	107	143	155	167	146	143	147	133
713:	148	129	161	146	169	150	144	144
721:	137	146	159	149	148	154	170	155
729:	153	140	136	165	147	145	142	144
737:	152	137	156	152	145	154	135	141
745:	142	152	153	157	151	155	170	162
753:	154	141	147	184	131	169	154	160
761:	148	151	146	165	166	151	149	152
769:	140	148	136	147	156	157	190	148
777:	156	146	155	134	153	160	140	152
785:	156	174	149	162	160	185	179	149
793:	136	143	162	142	155	171	164	166
801:	151	147	154	157	171	161	177	180
809:	170	179	157	147	173	154	176	181
817:	174	140	152	170	184	172	172	167
825:	180	168	151	155	152	167	158	177
833:	165	167	163	161	178	163	175	178
841:	175	155	176	156	160	182	181	185
849:	178	171	172	184	174	175	186	187
857:	168	184	160	159	187	192	187	156
865:	166	137	180	179	170	184	174	180
873:	182	160	166	180	178	184	178	180
881:	182	200	159	168	198	191	185	174
889:	195	174	168	173	192	161	218	201
897:	230	335	290	190	221	161	194	193
905:	197	182	199	185	191	170	208	182

913:	191	203	194	195	205	200	212	225
921:	210	211	223	198	182	198	203	189
929:	210	185	214	222	204	199	204	217
937:	209	199	207	187	219	194	231	223
945:	222	196	203	221	203	214	219	208
953:	215	249	222	216	194	223	215	196
961:	214	224	213	228	195	166	168	173
969:	205	163	158	179	162	180	179	153
977:	171	134	172	152	154	162	157	163
985:	176	169	143	167	156	144	124	146
993:	156	141	160	144	145	145	163	163
1001:	143	180	153	164	149	162	149	167
1009:	152	170	157	142	150	154	142	152
1017:	164	163	130	138	140	154	122	137
1025:	159	147	149	156	123	149	160	155
1033:	150	151	134	150	137	133	157	137
1041:	149	152	134	120	156	149	151	139
1049:	126	146	140	130	116	132	130	126
1057:	125	128	125	139	126	166	124	145
1065:	129	144	148	134	155	127	139	127
1073:	117	149	151	147	130	159	117	149
1081:	134	138	132	132	111	152	119	144
1089:	142	147	159	142	144	147	142	155
1097:	143	149	119	155	121	129	139	143
1105:	133	140	143	145	134	147	146	149
1113:	138	135	127	147	116	152	116	98
1121:	121	96	105	92	81	88	88	98
1129:	91	89	97	102	89	95	83	76
1137:	68	93	78	88	78	92	74	96
1145:	92	79	93	87	91	75	84	74
1153:	82	68	58	83	97	84	79	70
1161:	67	80	75	71	70	81	90	75
1169:	90	74	164	1086	3461	4194	2018	319
1177:	71	57	60	75	67	62	59	60
1185:	57	66	67	59	47	58	48	58
1193:	61	49	47	50	61	34	26	39
1201:	40	43	41	47	42	36	45	51
1209:	37	46	41	32	41	41	35	48
1217:	44	35	33	28	38	36	37	28
1225:	33	41	22	28	28	27	31	32
1233:	25	33	30	33	32	31	30	26
1241:	29	22	21	20	20	22	25	26
1249:	24	23	21	17	12	15	31	22
1257:	24	22	26	22	23	20	12	23
1265:	14	27	11	27	17	26	21	21
1273:	16	20	16	21	20	20	13	22
1281:	19	16	21	33	21	20	24	21
1289:	22	17	21	19	23	31	26	16
1297:	18	23	19	27	16	15	18	15
1305:	16	13	22	24	16	17	18	15
1313:	17	15	24	17	22	21	18	21
1321:	26	11	23	23	16	27	31	31
1329:	30	82	532	2253	3983	2583	650	64
1337:	9	9	10	14	9	4	10	6
1345:	5	9	10	10	7	8	15	5
1353:	10	12	6	7	7	8	9	4
1361:	11	4	7	5	12	6	7	8
1369:	5	8	7	2	4	5	2	5
1377:	11	8	5	5	8	5	3	4
1385:	7	6	7	5	6	7	7	6

1393:	11	9	4	4	5	3	11	8
1401:	12	4	5	11	4	8	8	8
1409:	7	7	12	5	5	5	1	6
1417:	9	8	9	5	3	4	4	3
1425:	3	6	5	7	7	3	3	5
1433:	3	5	10	6	6	4	2	6
1441:	4	2	6	3	6	5	3	7
1449:	3	7	5	6	7	4	4	6
1457:	6	7	8	2	11	5	8	10
1465:	3	8	4	4	9	9	4	7
1473:	2	3	3	9	6	3	6	3
1481:	2	4	4	6	4	11	7	5
1489:	4	3	8	3	5	9	8	4
1497:	7	5	7	5	12	6	1	7
1505:	5	6	3	4	9	8	6	4
1513:	6	5	9	1	3	6	4	4
1521:	4	5	8	5	10	4	5	4
1529:	9	10	6	11	3	2	6	6
1537:	6	4	6	5	4	8	3	4
1545:	6	5	5	5	6	5	3	7
1553:	3	6	9	6	4	8	4	7
1561:	8	7	4	6	5	2	5	2
1569:	7	6	2	2	9	2	5	4
1577:	5	6	4	5	3	9	1	10
1585:	7	5	7	6	8	4	4	7
1593:	9	0	8	3	9	8	9	11
1601:	8	7	7	2	10	5	4	8
1609:	7	5	3	4	6	3	5	6
1617:	3	1	3	3	3	8	4	2
1625:	4	5	6	3	1	10	4	5
1633:	9	3	3	3	2	3	4	5
1641:	4	2	8	2	5	3	5	2
1649:	5	5	2	3	2	2	3	6
1657:	5	1	4	7	4	7	5	3
1665:	5	4	6	2	6	4	2	0
1673:	3	6	2	2	4	3	6	5
1681:	2	7	5	4	3	3	5	6
1689:	5	2	5	3	8	5	3	2
1697:	4	3	4	6	2	4	5	2
1705:	2	7	5	3	3	1	2	5
1713:	1	2	4	5	4	2	1	1
1721:	3	1	1	2	3	2	6	4
1729:	3	2	1	2	3	3	3	2
1737:	4	4	3	5	4	4	4	3
1745:	2	6	1	1	5	6	0	5
1753:	4	5	4	1	2	3	1	3
1761:	1	5	3	3	6	3	5	4
1769:	2	2	3	2	2	4	5	2
1777:	3	2	2	3	1	2	5	1
1785:	6	1	1	4	1	2	2	3
1793:	2	2	2	0	3	3	2	7
1801:	2	3	3	4	7	5	1	1
1809:	1	2	2	2	2	1	1	2
1817:	1	4	0	4	7	1	3	2
1825:	4	2	3	4	4	2	1	4
1833:	3	5	17	42	87	52	18	1
1841:	4	3	2	6	3	8	2	2
1849:	2	7	1	1	0	2	1	3
1857:	4	3	2	5	5	1	3	1
1865:	2	2	2	1	3	2	1	1

1873:	1	2	3	3	2	2	2	3
1881:	0	0	1	4	4	5	5	5
1889:	2	3	1	3	1	5	4	0
1897:	2	5	3	2	1	1	2	2
1905:	0	3	2	1	2	2	5	3
1913:	3	3	2	2	2	2	4	4
1921:	1	2	0	3	2	0	5	1
1929:	1	1	1	2	0	2	1	3
1937:	4	2	0	2	3	2	4	1
1945:	2	2	2	4	2	9	3	1
1953:	4	2	2	0	0	0	3	4
1961:	1	1	0	2	3	3	3	1
1969:	2	4	3	1	0	1	3	2
1977:	1	2	3	2	4	5	1	0
1985:	3	3	0	0	1	1	3	1
1993:	3	1	0	3	7	0	5	2
2001:	2	3	3	3	2	1	0	1
2009:	2	3	1	3	1	2	0	3
2017:	2	1	2	0	3	0	2	1
2025:	2	0	1	3	3	2	4	1
2033:	1	0	1	4	1	3	6	2
2041:	3	2	5	0	2	2	0	1
2049:	2	4	1	2	2	1	4	1
2057:	1	2	3	2	3	3	2	0
2065:	1	3	0	3	2	3	0	1
2073:	2	2	1	2	2	2	2	4
2081:	2	1	0	1	1	1	0	1
2089:	2	1	2	1	1	0	3	1
2097:	0	0	3	1	3	2	3	0
2105:	2	2	3	0	2	0	2	2
2113:	2	0	3	1	0	3	3	2
2121:	1	2	3	1	1	0	1	1
2129:	1	1	2	1	1	1	1	2
2137:	2	1	4	2	3	2	1	1
2145:	3	0	0	1	0	2	1	2
2153:	1	1	1	2	1	2	1	2
2161:	6	3	2	0	1	1	1	1
2169:	1	0	1	1	2	2	1	2
2177:	2	2	2	0	1	3	2	2
2185:	0	0	3	0	1	0	0	0
2193:	2	0	3	4	2	0	0	1
2201:	3	0	1	0	5	0	1	1
2209:	1	0	0	0	1	2	3	0
2217:	1	1	0	1	2	1	1	0
2225:	3	0	5	1	1	0	0	2
2233:	2	1	0	0	2	0	2	1
2241:	1	2	3	2	1	4	2	0
2249:	0	0	3	3	1	2	3	1
2257:	0	2	0	1	0	1	3	1
2265:	0	0	1	2	1	1	1	1
2273:	1	2	1	0	2	2	1	0
2281:	2	2	1	0	3	1	0	2
2289:	3	1	1	2	1	4	3	2
2297:	0	3	1	1	4	2	1	5
2305:	1	2	2	3	0	1	3	1
2313:	2	1	1	0	0	0	0	2
2321:	1	1	1	0	0	1	0	0
2329:	1	0	0	3	2	0	0	2
2337:	2	1	0	0	3	0	1	1
2345:	0	1	0	1	0	1	0	2

2353:	1	0	2	1	1	0	0	0
2361:	1	1	0	1	1	1	0	2
2369:	2	0	0	0	0	0	0	1
2377:	1	1	0	0	0	0	0	2
2385:	0	0	0	0	1	0	0	2
2393:	0	3	0	1	1	1	0	0
2401:	4	2	0	0	0	0	1	0
2409:	0	2	0	1	0	0	0	0
2417:	1	0	1	0	0	0	0	0
2425:	0	0	1	0	0	0	0	0
2433:	0	1	0	2	1	1	1	0
2441:	2	0	0	0	0	1	0	1
2449:	0	0	0	0	0	0	1	2
2457:	1	0	0	1	0	0	0	0
2465:	0	0	0	0	0	2	1	0
2473:	0	0	0	0	0	1	1	0
2481:	0	0	1	1	0	0	0	0
2489:	0	1	0	0	0	0	0	1
2497:	2	0	0	0	1	1	1	1
2505:	2	14	14	11	10	2	0	0
2513:	0	0	0	0	0	0	0	0
2521:	0	0	1	0	0	0	0	0
2529:	1	0	0	1	0	0	0	1
2537:	0	1	0	1	1	0	2	0
2545:	0	0	0	0	0	0	0	0
2553:	0	0	0	0	0	0	0	0
2561:	0	0	0	0	0	0	0	0
2569:	0	0	0	0	0	1	0	1
2577:	0	0	0	0	0	0	0	0
2585:	0	0	0	0	0	0	0	0
2593:	0	0	1	0	0	0	1	0
2601:	0	0	0	0	1	0	0	0
2609:	0	1	0	0	0	3	2	4
2617:	5	1	0	0	0	0	0	0
2625:	0	0	1	0	0	0	1	0
2633:	0	0	0	0	0	0	0	0
2641:	0	0	0	0	0	0	0	0
2649:	1	0	0	0	0	0	0	0
2657:	0	0	0	0	0	0	0	0
2665:	0	0	1	1	0	0	0	0
2673:	0	0	0	0	0	0	0	0
2681:	0	0	0	0	0	0	1	1
2689:	0	0	0	0	1	0	1	0
2697:	0	0	1	0	0	1	0	0
2705:	0	0	0	0	0	0	0	0
2713:	0	0	0	0	0	0	0	0
2721:	0	0	0	0	0	0	1	0
2729:	0	0	0	0	1	0	1	0
2737:	0	0	0	0	0	0	0	0
2745:	0	0	0	0	0	0	0	0
2753:	0	0	1	0	0	0	0	0
2761:	0	0	0	0	0	0	1	0
2769:	0	0	0	0	0	0	0	0
2777:	0	0	0	0	0	0	0	0
2785:	0	0	0	0	0	0	0	0
2793:	0	0	1	0	0	0	0	0
2801:	0	0	1	0	0	0	0	1
2809:	0	0	0	0	0	0	0	0
2817:	0	1	0	0	0	0	0	0
2825:	0	0	0	0	0	0	1	0

2833:	0	0	0	0	0	0	0	0	0
2841:	0	0	1	0	0	0	0	0	1
2849:	0	0	0	0	0	0	0	0	0
2857:	0	1	0	0	0	0	0	0	0
2865:	0	0	0	0	0	0	0	1	0
2873:	0	1	0	0	0	0	0	0	0
2881:	0	0	0	0	1	0	0	0	0
2889:	1	0	0	0	0	0	0	0	0
2897:	0	0	0	0	0	0	0	0	0
2905:	0	0	0	0	0	0	0	0	0
2913:	0	0	0	0	0	0	0	0	0
2921:	0	0	0	0	0	0	0	0	0
2929:	0	1	0	0	0	0	0	0	0
2937:	0	0	0	0	0	0	0	0	0
2945:	0	0	0	0	0	0	0	0	0
2953:	0	0	0	0	0	0	0	0	0
2961:	0	0	0	0	0	0	0	0	0
2969:	0	0	0	0	0	1	0	0	0
2977:	0	0	0	0	0	0	0	0	0
2985:	0	0	0	0	1	0	0	0	0
2993:	0	0	0	0	0	0	0	0	0
3001:	0	0	0	0	0	0	0	0	0
3009:	0	0	0	0	0	0	0	0	0
3017:	0	0	0	0	1	0	0	0	0
3025:	0	0	0	0	0	0	0	0	1
3033:	0	0	0	1	0	0	1	0	0
3041:	0	0	0	0	0	0	0	0	0
3049:	0	0	0	0	0	0	1	0	0
3057:	0	0	0	0	0	0	0	0	0
3065:	0	0	0	0	0	0	0	0	0
3073:	0	0	0	0	0	0	0	0	0
3081:	0	0	0	0	0	0	0	0	0
3089:	0	0	0	0	0	0	0	0	0
3097:	0	0	0	0	0	0	0	0	0
3105:	0	0	1	0	0	0	0	0	0
3113:	0	1	0	0	1	0	0	0	0
3121:	0	0	0	0	0	0	0	0	0
3129:	0	0	0	0	0	0	0	0	0
3137:	0	0	0	1	0	0	0	0	0
3145:	0	0	2	0	0	0	0	0	0
3153:	0	0	0	0	0	0	0	0	0
3161:	0	0	0	0	0	0	0	0	0
3169:	0	0	0	0	0	0	0	0	0
3177:	0	0	0	0	0	0	0	0	0
3185:	0	0	0	0	0	0	0	0	0
3193:	0	0	0	0	0	0	1	0	0
3201:	0	0	0	0	0	0	0	0	0
3209:	0	0	0	0	0	0	0	0	0
3217:	0	0	0	0	1	0	0	0	0
3225:	0	0	0	0	0	0	0	0	1
3233:	0	0	0	0	0	0	0	0	0
3241:	0	0	0	0	0	0	0	0	0
3249:	0	0	0	0	0	0	0	0	0
3257:	0	0	0	0	0	0	0	0	0
3265:	0	0	1	0	0	0	0	0	0
3273:	0	0	0	0	0	0	0	0	0
3281:	0	0	0	0	0	0	0	0	0
3289:	0	0	0	0	0	0	0	0	0
3297:	0	0	0	0	1	0	0	0	0
3305:	0	0	0	0	0	0	0	0	0

3313:	0	0	0	0	0	0	0	0
3321:	0	0	0	0	0	0	0	0
3329:	0	1	0	0	1	0	0	0
3337:	0	0	0	0	0	0	0	0
3345:	0	0	0	0	0	0	0	1
3353:	0	0	0	0	0	0	0	0
3361:	1	0	0	0	0	0	0	0
3369:	0	0	0	0	0	0	0	0
3377:	0	0	0	0	0	0	0	0
3385:	0	1	0	0	0	0	0	0
3393:	0	0	0	0	0	0	0	0
3401:	0	0	0	0	0	0	0	0
3409:	0	0	0	0	0	0	0	1
3417:	0	0	0	0	0	0	0	1
3425:	0	0	0	0	0	0	0	0
3433:	0	0	0	0	0	0	0	0
3441:	0	0	0	1	0	0	0	0
3449:	0	0	0	0	0	0	0	0
3457:	0	0	0	0	0	0	0	0
3465:	0	0	0	0	0	0	0	0
3473:	0	0	0	0	0	0	0	0
3481:	0	0	0	0	1	0	0	1
3489:	0	0	0	0	0	0	0	0
3497:	0	0	0	0	0	0	0	0
3505:	0	0	0	0	0	0	0	0
3513:	0	0	0	0	1	1	0	0
3521:	0	0	0	0	0	0	0	0
3529:	0	0	0	0	0	0	0	0
3537:	0	0	0	0	0	0	0	0
3545:	0	0	0	0	0	0	0	0
3553:	1	0	0	0	0	0	0	0
3561:	0	0	0	0	0	0	0	0
3569:	0	0	0	0	0	0	0	0
3577:	0	0	0	2	0	0	0	0
3585:	0	0	0	0	0	0	0	0
3593:	0	0	0	0	0	0	0	0
3601:	0	0	0	0	0	0	0	0
3609:	0	0	0	0	0	0	0	0
3617:	0	0	0	0	0	0	0	0
3625:	0	0	0	0	1	0	0	0
3633:	0	0	0	0	0	0	0	0
3641:	0	0	0	0	0	0	0	0
3649:	0	0	0	0	0	0	0	0
3657:	0	0	0	0	0	0	0	0
3665:	0	0	0	0	0	0	0	0
3673:	0	0	0	0	0	0	0	0
3681:	0	0	0	0	0	1	0	0
3689:	0	0	0	0	0	0	0	0
3697:	0	0	0	0	0	0	0	0
3705:	0	0	0	0	0	0	0	0
3713:	0	0	0	0	0	0	0	0
3721:	0	0	0	0	0	1	0	1
3729:	0	0	0	0	0	0	0	0
3737:	0	0	0	0	0	0	0	0
3745:	0	0	0	1	0	0	0	0
3753:	0	0	0	0	0	0	0	0
3761:	0	0	1	0	0	0	0	0
3769:	0	1	0	0	0	0	0	0
3777:	0	0	0	0	0	0	0	0
3785:	0	0	0	0	0	0	0	0

3793:	0	0	0	0	0	0	0	0
3801:	0	0	0	0	0	0	0	0
3809:	0	0	0	0	0	0	0	0
3817:	0	0	0	0	0	0	0	0
3825:	0	0	0	0	0	0	0	0
3833:	0	0	0	0	0	0	0	0
3841:	0	0	0	0	0	0	0	0
3849:	0	0	0	0	0	0	0	0
3857:	0	0	0	0	0	0	0	0
3865:	0	0	0	0	0	0	0	0
3873:	0	0	0	0	0	0	0	0
3881:	0	0	0	0	0	0	0	0
3889:	0	0	0	0	0	0	0	0
3897:	0	1	0	0	0	0	0	0
3905:	0	0	0	0	0	0	0	0
3913:	0	0	0	0	0	0	0	0
3921:	1	0	0	0	0	0	0	0
3929:	0	0	1	0	0	0	0	0
3937:	0	0	0	0	0	0	0	0
3945:	0	0	0	0	0	0	0	0
3953:	0	1	0	0	0	1	0	0
3961:	0	0	0	0	0	0	0	0
3969:	0	0	0	0	0	0	0	0
3977:	0	0	0	0	0	0	0	0
3985:	0	1	0	0	0	0	0	0
3993:	0	0	0	0	0	0	0	0
4001:	0	0	0	0	0	0	0	0
4009:	0	0	0	0	0	0	0	0
4017:	0	0	0	0	0	0	0	0
4025:	0	0	0	0	0	0	0	0
4033:	0	0	1	0	0	0	0	0
4041:	0	0	0	0	0	0	0	0
4049:	0	0	1	0	0	0	0	0
4057:	0	0	0	0	0	0	0	0
4065:	0	0	0	0	0	0	0	1
4073:	0	0	0	0	0	0	0	0
4081:	0	0	0	0	0	0	0	0
4089:	0	0	0	0	0	0	0	0

Sample ID : 1111068-02

Page : 1
Acquisition date : 11-DEC-2011 16:48:02

AG
12/11/11

VAX/VMS Peak Search Report Generated 11-DEC-2011 17:48:30.38

Configuration : DKA100: [GAMMA.SCUSR.ARCHIVE] SMP_111106802_GE3_GAS1102_172301.
 Analyses by : PEAK V16.9 ENBACK V1.6 PEAKEFF V2.2
 Client ID : BLANK
 Deposition Date :
 Sample Date : 11-DEC-2011 00:00:00 Acquisition date : 11-DEC-2011 16:48:02
 Sample ID : 1111068-02 Sample Quantity : 7.83400E+02 GRAM
 Sample type : SOIL Sample Geometry : 0
 Detector name : GE3 Detector Geometry: GAS-1102
 Elapsed live time: 0 01:00:00.00 Elapsed real time: 0 01:00:13.89 0.4%
 Start channel : 5 End channel : 4096
 Sensitivity : 2.40000 Gaussian : 15.00000
 Critical level : Yes

Post-NID Peak Search Report

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides
0	32.36	55	160	3.70	32.64	30	7	81.6		
0	138.13	27	84	2.85	138.42	135	7	117.1		
0	187.84	58	76	3.63	188.13	183	10	63.3		
0	288.56	20	30	2.30	288.85	285	8	106.3		
0	352.94*	20	26	2.09	353.24	349	8	110.8		
0	511.99*	24	24	3.03	512.30	506	15	128.5		
0	539.79	11	8	3.53	540.10	537	6	97.0		
0	583.59*	12	10	2.98	583.91	581	7	119.1		
1	612.86	13	14	1.91	613.17	607	11	125.3	8.27E+00	
0	681.07	13	0	1.72	681.38	679	6	55.5		
1	783.86	6	2	2.02	784.18	783	11	73.6	1.40E+00	
1	786.86	12	5	2.02	787.18	783	11	83.8		
0	917.29	13	1	3.20	917.62	915	8	66.6		
0	1088.12	12	2	2.10	1088.47	1083	10	77.1		
0	1302.75	9	0	1.16	1303.11	1300	7	66.7		
0	1358.47	6	0	2.74	1358.83	1355	7	81.6		
0	1387.64	5	0	1.50	1388.00	1385	6	89.4		
0	1462.95*	7	2	1.22	1463.31	1458	10	127.7		
0	1601.56	7	2	2.46	1601.94	1598	7	94.7		
0	1620.34	7	0	1.33	1620.71	1617	7	75.6		

AG
12/12/11

Summary of Nuclide Activity
Sample ID : 1111068-02

Page : 2
Acquisition date : 11-DEC-2011 16:48:02

Total number of lines in spectrum	20	
Number of unidentified lines	15	
Number of lines tentatively identified by NID	5	25.00%

**** There are no nuclides meeting summary criteria ****

Flags: "K" = Keyline not found "M" = Manually accepted
 "E" = Manually edited "A" = Nuclide specific abn. limit

Nuclide Line Activity Report
Sample ID : 1111068-02

Page : 3
Acquisition date : 11-DEC-2011 16:48:02

Flag: "*" = Keyline

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-5.113E-03		1.183E-01	2.085E-01	2.075E-02	-0.025
NA-22	-7.431E-03		1.429E-02	2.500E-02	2.291E-03	-0.297
NA-24	3.604E-03		2.421E-02	5.653E-02	4.842E-03	0.064
AL-26	8.536E-03		9.892E-03	3.063E-02	2.740E-03	0.279
K-40	1.495E-01		1.765E-01	4.283E-01	3.841E-02	0.349
TI-44	-1.661E-02		1.509E-02	2.483E-02	2.522E-03	-0.669
SC-46	-6.746E-03		1.256E-02	2.243E-02	1.818E-03	-0.301
V-48	-4.449E-03		1.190E-02	2.250E-02	1.960E-03	-0.198
CR-51	7.249E-03		1.060E-01	1.897E-01	1.729E-02	0.038
MN-54	2.114E-03		1.312E-02	2.725E-02	2.346E-03	0.078
CO-56	8.201E-03		1.552E-02	3.313E-02	2.819E-03	0.248
CO-57	6.692E-03		1.206E-02	2.195E-02	2.549E-03	0.305
CO-58	-8.971E-05		1.306E-02	2.627E-02	2.315E-03	-0.003
FE-59	3.965E-03		1.671E-02	4.030E-02	4.128E-03	0.098
CO-60	4.503E-03		1.250E-02	2.883E-02	2.930E-03	0.156
ZN-65	-1.197E-02		3.326E-02	6.360E-02	6.197E-03	-0.188
GA-67	-2.176E-03		4.664E-02	8.415E-02	9.538E-02	-0.026
SE-75	-9.967E-03		1.479E-02	2.386E-02	2.040E-03	-0.418
RB-82	-4.140E-02		1.080E-01	1.889E-01	1.702E-02	-0.219
RB-83	-8.896E-03		2.583E-02	4.300E-02	7.072E-03	-0.207
KR-85	9.609E+00		3.995E+00	8.847E+00	8.860E-01	1.086
SR-85	4.233E-02		1.760E-02	3.897E-02	3.903E-03	1.086
Y-88	5.344E-03		1.203E-02	3.110E-02	2.781E-03	0.172
NB-93M	-1.446E+00		1.662E+00	2.168E+00	1.603E+00	-0.667
NB-94	-4.747E-03		1.352E-02	2.522E-02	2.090E-03	-0.188
NB-95	1.039E-02		1.358E-02	3.039E-02	2.757E-03	0.342
NB-95M	-6.752E-02		4.548E-02	6.477E-02	5.901E-03	-1.042
ZR-95	3.788E-03		2.161E-02	4.528E-02	4.505E-03	0.084
MO-99	1.661E-02		1.302E-01	2.624E-01	2.413E-02	0.063
RU-103	6.990E-04		1.120E-02	2.084E-02	3.134E-03	0.034
RU-106	-1.149E-02		1.231E-01	2.311E-01	3.254E-02	-0.050
AG-108M	-1.370E-02		1.465E-02	2.383E-02	2.207E-03	-0.575
CD-109	-1.998E-01		3.209E-01	5.402E-01	8.710E-02	-0.370
AG-110M	-1.575E-03		1.299E-02	2.538E-02	2.393E-03	-0.062
SN-113	5.404E-03		1.823E-02	3.351E-02	3.254E-03	0.161
TE123M	-3.623E-03		1.028E-02	1.761E-02	1.796E-03	-0.206
SB-124	5.506E-03		1.545E-02	2.887E-02	2.833E-03	0.191
I-125	1.123E-03		3.196E-01	5.395E-01	7.562E-02	0.002
SB-125	3.686E-03		2.895E-02	5.505E-02	5.434E-03	0.067
SB-126	6.679E-03		2.478E-02	5.163E-02	4.786E-03	0.129
SN-126	-2.005E-02		3.221E-02	5.427E-02	8.078E-03	-0.369
SB-127	1.031E-02		3.022E-02	6.370E-02	5.964E-03	0.162
I-129	-3.513E-02		5.286E-02	8.396E-02	1.561E-02	-0.418
I-131	1.010E-03		1.386E-02	2.490E-02	2.287E-03	0.041
TE-132	5.130E-03		1.080E-02	2.045E-02	1.890E-03	0.251
BA-133	1.808E-03		1.971E-02	3.265E-02	4.412E-03	0.055
I-133	3.972E-03		2.179E-02	4.460E-02	4.467E-03	0.089
CS-134	5.921E-03		1.611E-02	2.991E-02	2.938E-03	0.198

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CS-135	2.894E-02		5.525E-02	1.053E-01	8.849E-03	0.275
I-135	-1.054E-01		2.471E-01	4.572E-01	4.259E-02	-0.231
CS-136	6.941E-03		1.982E-02	4.260E-02	4.020E-03	0.163
CS-137	1.316E-02		1.584E-02	3.445E-02	3.241E-03	0.382
LA-138	2.551E-02		2.547E-02	6.280E-02	5.456E-03	0.406
CE-139	-1.036E-02		1.094E-02	1.720E-02	1.708E-03	-0.603
BA-140	-5.936E-03		4.812E-02	8.451E-02	2.834E-02	-0.070
LA-140	-7.920E-03		2.240E-02	3.450E-02	3.065E-03	-0.230
CE-141	3.265E-03		2.068E-02	3.683E-02	7.255E-03	0.089
CE-143	1.319E-03		3.528E-02	5.827E-02	4.837E-03	0.023
CE-144	-8.157E-02		9.590E-02	1.422E-01	1.587E-02	-0.574
PM-144	6.341E-03		1.503E-02	3.096E-02	2.891E-03	0.205
PM-145	-5.057E-02		9.878E-02	1.497E-01	9.862E-02	-0.338
PM-146	2.467E-02		2.579E-02	5.435E-02	5.358E-03	0.454
ND-147	2.570E-02		9.126E-02	1.813E-01	1.816E-02	0.142
PM-149	-4.533E-02		3.868E-01	6.259E-01	5.132E-02	-0.072
EU-152	7.142E-02		8.492E-02	2.234E-01	2.441E-02	0.320
GD-153	-4.975E-02		5.223E-02	8.157E-02	1.087E-02	-0.610
EU-154	-2.208E-02		3.983E-02	6.874E-02	6.300E-03	-0.321
EU-155	-7.010E-03		3.760E-02	6.544E-02	9.563E-03	-0.107
EU-156	1.937E-03		1.424E-01	2.828E-01	6.477E-02	0.007
HO-166M	1.579E-02		2.728E-02	5.760E-02	5.355E-03	0.274
HF-172	-1.783E-03		8.603E-02	1.514E-01	1.734E-02	-0.012
LU-172	1.765E-03		2.011E-02	4.060E-02	3.886E-03	0.043
LU-173	3.314E-03		4.615E-02	8.263E-02	6.859E-03	0.040
HF-175	2.538E-03		1.185E-02	2.184E-02	1.953E-03	0.116
LU-176	-1.225E-02		1.106E-02	1.631E-02	1.384E-03	-0.751
TA-182	-2.582E-02		4.879E-02	9.043E-02	8.844E-03	-0.286
IR-192	-4.598E-03		2.535E-02	4.356E-02	4.320E-03	-0.106
HG-203	2.966E-03		1.229E-02	2.254E-02	1.886E-03	0.132
BI-207	9.611E-03		1.210E-02	2.644E-02	2.631E-03	0.363
TL-208	4.583E-02	+	5.481E-02	1.018E-01	1.008E-02	0.450
BI-210M	9.171E-03		1.737E-02	3.373E-02	2.887E-03	0.272
PB-210	-1.989E-01		4.547E-01	7.895E-01	7.952E-02	-0.252
PB-211	-8.497E-03		3.661E-01	6.520E-01	6.238E-02	-0.013
BI-212	9.035E-02		1.140E-01	2.531E-01	2.340E-02	0.357
PB-212	-9.642E-03		2.334E-02	4.323E-02	3.915E-03	-0.223
BI-214	8.485E-03		3.672E-02	7.289E-02	7.128E-03	0.116
PB-214	3.969E-02	+	4.413E-02	6.585E-02	5.955E-03	0.603
RN-219	-1.756E-01		1.842E-01	2.777E-01	2.651E-02	-0.632
RA-223	-6.356E-02		2.494E-01	4.279E-01	3.724E-02	-0.149
RA-224	1.085E-01		2.551E-01	4.685E-01	4.223E-02	0.232
RA-225	4.937E-02		5.816E-02	1.095E-01	1.307E-02	0.451
RA-226	-1.182E-01		3.894E-01	5.934E-01	1.087E+00	-0.199
TH-227	-1.221E-01		8.675E-02	1.254E-01	1.142E-02	-0.973
AC-228	1.779E-02		5.773E-02	1.116E-01	9.065E-03	0.159
TH-230	-4.288E+00		3.852E+00	6.334E+00	6.402E-01	-0.677
PA-231	3.130E-01		4.141E-01	8.104E-01	6.829E-02	0.386

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-231	5.326E-01		3.126E-01	5.343E-01	1.323E-01	0.997
PA-233	1.352E-02		2.635E-02	4.971E-02	1.114E-02	0.272
PA-234	1.888E-02		5.116E-02	8.627E-02	9.704E-03	0.219
PA-234M	-7.660E-02		1.520E+00	3.078E+00	2.724E-01	-0.025
TH-234	4.313E-02		3.972E-01	7.375E-01	6.712E-02	0.058
U-235	5.968E-02		1.000E-01	1.731E-01	3.230E-02	0.345
NP-237	-1.724E-02		9.218E-02	1.604E-01	2.345E-02	-0.107
NP-239	6.578E-03		6.019E-02	1.064E-01	1.387E-02	0.062
AM-241	-7.552E-02		4.079E-02	6.350E-02	5.230E-03	-1.189
AM-243	-1.534E-02		1.971E-02	3.229E-02	3.789E-03	-0.475
CM-243	-2.436E-02		6.827E-02	1.154E-01	9.405E-03	-0.211

Summary of Nuclide Activity

Sample ID : 1111068-02

Acquisition date : 11-DEC-2011 16:48:02

Total number of lines in spectrum	20	
Number of unidentified lines	15	
Number of lines tentatively identified by NID	5	25.00%

**** There are no nuclides meeting summary criteria ****

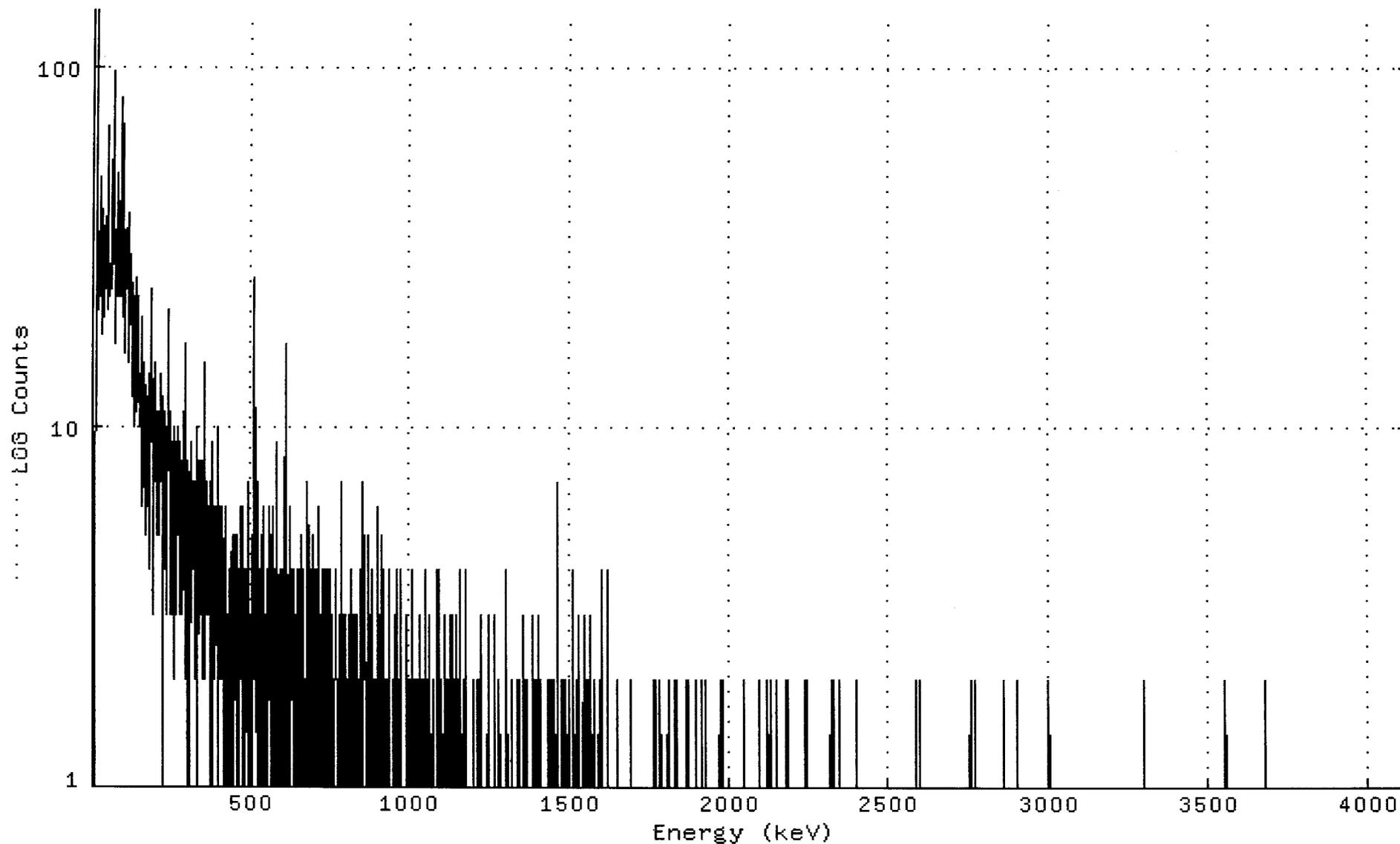
Flags: "K" = Keyline not found

"M" = Manually accepted

"E" = Manually edited

"A" = Nuclide specific abn. limit

Spectrum : DKA100:[GAMMA.SCUSR.ARCHIVE]SMP_111106802_GE3_GAS1102_172301.CNF;1
Title :
Sample Title: BLANK
Start Time: 11-DEC-2011 16:48 Sample Time: 11-DEC-2011 00:00 Energy Offset: -2.78447E-01
Real Time : 0 01:00:13.89 Sample ID : 1111068-02 Energy Slope : 9.99940E-01
Live Time : 0 01:00:00.00 Sample Type: SOIL Energy Quad : 0.00000E+00



000000

Channel Contents for DKA100: [GAMMA.SCUSR.ARCHIVE] SMP_111106802_GE3_GAS1102_1723

Channel

1:	0	0	0	0	0	0	0	0
9:	0	93	144	73	79	46	42	29
17:	33	34	27	21	25	23	35	36
25:	49	43	38	40	18	29	31	34
33:	36	36	24	25	20	25	29	27
41:	38	26	26	25	24	27	68	36
49:	21	38	28	26	23	28	24	27
57:	24	33	33	31	24	29	31	97
65:	33	28	43	32	38	30	25	31
73:	25	35	17	43	41	50	39	23
81:	35	29	28	42	38	23	29	33
89:	32	23	33	26	82	58	30	28
97:	24	20	26	21	27	35	19	16
105:	25	31	30	24	25	28	34	37
113:	24	39	24	15	36	19	25	28
121:	30	20	22	22	21	15	17	25
129:	12	23	22	16	18	15	10	13
137:	22	16	26	13	11	12	22	23
145:	17	20	14	14	10	13	10	10
153:	13	10	10	20	17	12	6	13
161:	13	15	7	12	9	5	10	13
169:	13	10	8	9	12	11	12	6
177:	11	4	10	14	13	12	13	9
185:	11	22	24	11	15	12	12	5
193:	3	9	7	7	14	10	15	10
201:	10	11	6	5	10	6	10	5
209:	8	7	6	9	11	9	9	10
217:	14	12	7	12	10	12	6	1
225:	4	6	11	9	6	4	8	8
233:	10	4	7	3	7	8	21	9
241:	9	8	10	7	5	3	7	9
249:	11	6	5	3	9	4	6	10
257:	5	2	6	4	4	9	7	3
265:	3	5	7	5	10	5	8	7
273:	7	7	9	3	5	6	9	5
281:	7	5	8	3	3	4	6	8
289:	11	7	5	6	3	2	9	17
297:	9	5	1	7	6	6	8	7
305:	6	5	4	5	1	8	9	5
313:	3	8	4	6	7	4	7	5
321:	6	6	3	7	2	5	6	4
329:	10	4	3	5	1	7	7	5
337:	4	8	5	6	4	8	4	3
345:	3	8	2	4	3	5	4	11
353:	15	8	8	2	4	6	4	7
361:	4	3	4	6	4	6	3	4
369:	3	5	1	3	7	6	3	6
377:	9	0	8	7	4	4	4	5
385:	2	6	2	3	5	5	5	5
393:	6	6	7	3	2	10	1	4
401:	6	3	2	2	5	3	6	4
409:	4	2	6	4	4	0	4	3
417:	2	1	5	6	3	3	1	3
425:	1	2	2	2	3	2	4	1

433:	3	3	2	3	4	4	1	2
441:	4	5	2	4	4	5	1	3
449:	5	3	4	5	4	3	5	3
457:	2	0	0	2	0	2	4	4
465:	4	2	6	2	4	2	3	6
473:	1	5	2	5	5	2	2	3
481:	4	4	1	2	2	3	3	4
489:	4	1	7	2	2	1	3	1
497:	3	1	3	2	0	5	3	1
505:	2	3	5	2	5	9	25	26
513:	18	7	5	2	5	4	2	1
521:	1	1	7	3	4	4	3	3
529:	1	2	4	3	5	1	1	1
537:	0	4	2	6	6	1	3	1
545:	1	1	3	3	2	2	4	2
553:	2	2	1	3	3	3	5	6
561:	3	2	1	1	2	3	5	3
569:	6	2	3	3	1	0	4	1
577:	4	2	3	1	0	5	4	9
585:	5	3	1	3	2	0	2	4
593:	4	3	2	1	3	1	3	2
601:	3	3	4	3	5	4	4	0
609:	4	17	4	1	9	2	5	3
617:	1	2	3	0	3	4	1	1
625:	6	1	3	2	4	2	2	2
633:	3	1	1	0	1	4	1	1
641:	2	2	3	3	2	1	2	4
649:	4	0	3	1	2	1	4	1
657:	1	1	4	2	5	4	1	4
665:	2	2	2	0	3	0	2	2
673:	0	2	2	2	2	0	0	1
681:	7	4	1	0	0	2	3	1
689:	0	1	2	1	4	0	5	2
697:	5	3	2	3	3	1	0	4
705:	1	0	2	4	4	2	3	2
713:	3	6	0	3	2	1	3	2
721:	3	0	3	0	1	0	4	3
729:	4	4	3	1	1	0	3	2
737:	3	4	1	2	3	1	1	2
745:	1	4	2	2	1	2	2	4
753:	2	2	3	2	1	1	1	1
761:	0	0	0	2	0	4	4	2
769:	3	2	2	2	2	1	1	2
777:	1	0	3	2	2	2	0	4
785:	3	0	7	2	3	1	2	3
793:	0	1	0	3	1	1	2	0
801:	0	0	2	2	0	0	1	1
809:	1	3	1	0	2	3	3	1
817:	4	4	1	1	1	2	1	3
825:	2	1	1	2	1	1	3	2
833:	3	1	1	2	1	1	1	0
841:	2	2	0	4	1	2	3	3
849:	3	1	1	2	2	4	7	2
857:	2	2	2	2	5	1	1	1
865:	0	2	1	5	1	0	3	1
873:	1	1	1	1	0	3	1	4
881:	1	0	3	2	2	2	1	1
889:	0	0	2	1	1	1	1	2
897:	2	2	6	2	2	0	5	1
905:	3	2	2	0	2	1	1	5

913:	1	0	1	4	2	4	1	1
921:	1	0	0	0	2	0	1	0
929:	1	2	1	0	1	2	4	1
937:	2	1	1	1	0	1	1	0
945:	0	0	2	0	2	0	0	2
953:	2	3	1	0	1	1	0	0
961:	2	4	1	0	1	0	0	1
969:	1	4	1	1	1	1	0	0
977:	1	0	1	1	1	1	0	1
985:	1	0	0	0	3	1	3	2
993:	1	2	0	1	0	1	0	2
1001:	2	1	0	2	1	1	1	1
1009:	1	1	4	0	1	1	2	0
1017:	0	0	2	1	1	0	1	2
1025:	2	0	2	0	1	2	0	0
1033:	1	3	0	1	2	2	0	2
1041:	0	1	0	2	2	2	0	1
1049:	1	1	4	1	0	2	0	1
1057:	0	0	1	2	3	2	1	0
1065:	2	0	1	0	1	1	0	2
1073:	1	1	0	1	1	1	1	0
1081:	1	0	0	1	1	1	1	1
1089:	4	4	1	0	1	2	0	0
1097:	0	0	0	1	2	0	1	0
1105:	0	0	1	0	0	0	1	3
1113:	1	1	2	0	2	1	2	1
1121:	2	1	1	0	1	1	1	2
1129:	3	1	1	0	1	0	0	3
1137:	2	2	1	2	0	2	1	3
1145:	0	1	2	2	0	2	2	1
1153:	0	0	1	3	0	0	2	4
1161:	2	1	1	0	1	1	1	0
1169:	0	2	0	0	0	1	0	4
1177:	1	0	1	0	0	0	1	1
1185:	0	0	1	1	0	0	1	1
1193:	0	1	1	0	0	0	1	2
1201:	0	1	1	0	0	1	0	1
1209:	0	1	1	0	0	1	2	1
1217:	0	0	2	2	1	0	3	0
1225:	0	2	0	0	0	0	0	1
1233:	0	0	1	0	0	1	0	0
1241:	1	1	1	0	1	2	1	2
1249:	3	0	1	0	0	0	0	0
1257:	0	0	1	0	0	0	1	0
1265:	3	1	0	1	0	0	1	0
1273:	0	1	0	1	0	2	1	2
1281:	2	0	1	0	1	1	1	0
1289:	1	0	1	1	1	1	0	1
1297:	1	0	0	0	2	0	4	1
1305:	2	0	0	0	0	0	0	1
1313:	0	0	0	0	1	0	1	2
1321:	1	0	0	0	0	0	1	0
1329:	0	0	0	0	0	1	0	1
1337:	0	2	0	2	2	2	0	1
1345:	1	1	0	0	1	0	0	0
1353:	0	0	0	0	0	3	1	2
1361:	0	0	0	2	0	1	2	0
1369:	0	0	0	0	0	0	0	1
1377:	0	0	0	0	0	1	0	0
1385:	0	0	1	3	1	0	0	0

1393:	1	2	0	1	1	2	0	1
1401:	3	0	0	0	1	1	0	2
1409:	1	0	1	0	0	1	0	0
1417:	0	1	0	0	0	0	1	1
1425:	0	0	0	1	1	1	0	0
1433:	2	2	1	0	1	2	2	1
1441:	0	0	2	0	0	0	0	1
1449:	1	1	0	2	0	1	0	0
1457:	1	0	0	0	2	7	1	1
1465:	1	1	0	0	0	0	0	0
1473:	0	0	1	0	1	2	2	2
1481:	1	0	0	0	0	0	0	1
1489:	0	2	0	0	0	0	0	0
1497:	0	0	2	0	2	0	1	1
1505:	0	0	0	1	0	1	4	0
1513:	0	1	0	1	0	0	0	0
1521:	2	1	1	0	2	0	1	3
1529:	0	0	2	1	0	0	1	0
1537:	1	1	0	1	0	1	0	1
1545:	3	1	1	0	2	0	0	0
1553:	0	2	0	1	0	0	0	2
1561:	1	0	0	3	0	0	1	0
1569:	0	0	1	0	0	0	2	1
1577:	0	0	0	0	0	0	0	1
1585:	0	1	1	1	1	0	1	1
1593:	2	2	1	0	0	1	0	0
1601:	4	2	2	0	0	1	0	0
1609:	0	0	0	0	0	0	0	0
1617:	0	0	1	1	4	1	0	0
1625:	0	1	0	1	0	0	1	1
1633:	0	1	0	1	0	0	1	1
1641:	0	1	0	0	0	0	1	0
1649:	0	2	0	0	1	0	1	0
1657:	0	0	0	0	0	0	0	1
1665:	0	0	0	0	0	0	0	0
1673:	0	0	0	1	0	1	0	0
1681:	0	0	0	0	0	0	0	1
1689:	0	0	1	2	1	1	1	1
1697:	0	0	1	1	0	0	1	1
1705:	1	0	0	0	0	0	1	1
1713:	1	1	1	0	0	1	0	0
1721:	0	0	0	1	0	0	0	0
1729:	0	1	0	0	0	0	0	1
1737:	1	0	0	0	0	0	1	0
1745:	0	0	1	0	0	0	1	0
1753:	0	1	0	1	0	0	0	0
1761:	0	0	0	0	0	2	2	0
1769:	0	1	0	0	0	0	0	0
1777:	1	1	0	0	1	0	0	2
1785:	0	0	0	0	1	0	0	0
1793:	0	0	0	0	0	0	0	0
1801:	0	1	0	0	0	0	0	1
1809:	2	0	0	0	0	0	0	0
1817:	0	0	0	1	0	0	0	1
1825:	0	0	0	2	1	0	1	0
1833:	0	0	2	0	0	1	0	0
1841:	0	0	0	0	0	0	0	1
1849:	0	0	1	0	0	0	0	0
1857:	0	1	0	1	0	1	0	1
1865:	1	0	2	1	1	0	2	0

1873:	0	0	0	0	0	1	0	0
1881:	0	0	0	1	0	0	0	0
1889:	0	0	0	0	0	0	0	2
1897:	0	1	1	1	1	1	0	0
1905:	0	0	0	0	1	0	1	0
1913:	0	2	1	0	1	0	0	0
1921:	0	0	0	1	0	2	0	0
1929:	0	1	0	0	0	0	1	0
1937:	0	0	1	0	1	0	1	1
1945:	0	0	0	0	1	0	0	0
1953:	1	0	1	1	0	0	0	0
1961:	0	1	0	0	0	1	0	0
1969:	0	0	2	1	1	0	0	2
1977:	0	1	1	0	2	0	0	0
1985:	0	0	1	0	0	1	0	0
1993:	0	1	0	1	0	0	0	0
2001:	0	0	0	0	0	0	0	0
2009:	0	0	0	0	0	0	0	0
2017:	0	1	0	1	0	0	0	1
2025:	1	0	0	1	0	0	0	0
2033:	1	0	0	0	0	0	0	0
2041:	0	0	0	0	0	2	1	0
2049:	0	0	0	0	1	0	0	0
2057:	1	0	0	1	0	1	0	0
2065:	0	1	0	0	0	0	0	0
2073:	0	0	0	1	0	0	0	0
2081:	1	0	0	0	0	1	0	1
2089:	1	0	0	0	1	2	0	0
2097:	0	0	0	0	0	0	0	0
2105:	0	1	0	0	0	1	0	0
2113:	0	0	0	0	1	2	1	0
2121:	0	0	0	0	0	0	2	0
2129:	0	0	0	0	0	0	0	1
2137:	1	0	0	0	0	0	0	1
2145:	0	0	2	0	0	0	0	1
2153:	0	0	0	0	0	1	0	0
2161:	0	0	1	0	0	0	0	0
2169:	0	0	1	0	1	0	0	0
2177:	0	1	2	0	1	0	0	0
2185:	2	0	0	0	0	1	0	0
2193:	0	0	0	1	0	0	0	0
2201:	0	0	0	0	1	0	1	0
2209:	1	0	0	1	1	0	1	0
2217:	1	0	0	1	0	0	0	0
2225:	0	0	0	1	0	0	0	0
2233:	0	0	0	0	0	0	0	2
2241:	0	0	2	0	0	0	0	0
2249:	0	1	0	0	0	0	1	1
2257:	0	0	0	0	1	0	0	1
2265:	0	0	1	0	0	0	0	1
2273:	0	0	0	0	0	0	0	0
2281:	1	0	0	0	1	0	0	0
2289:	0	0	0	0	0	0	0	1
2297:	0	0	1	0	0	0	1	0
2305:	0	0	1	0	0	0	0	1
2313:	0	0	0	0	0	1	2	1
2321:	0	0	0	0	0	0	0	2
2329:	0	1	0	1	0	1	1	0
2337:	0	0	0	0	0	0	0	0
2345:	0	0	2	0	0	0	0	0

2353:	0	0	0	0	1	0	1	1
2361:	0	0	0	1	0	0	1	0
2369:	0	0	1	1	0	0	1	0
2377:	0	0	0	0	1	0	0	0
2385:	0	0	0	0	0	0	0	0
2393:	0	0	0	0	0	0	0	0
2401:	2	0	0	0	0	0	0	0
2409:	0	0	1	0	1	1	1	0
2417:	0	0	0	0	0	0	0	0
2425:	0	0	0	0	0	1	0	0
2433:	1	0	0	0	0	0	0	0
2441:	0	0	0	0	0	0	0	0
2449:	0	0	0	1	1	0	0	0
2457:	0	0	1	0	0	0	0	0
2465:	0	0	1	0	1	0	0	0
2473:	0	1	0	0	0	0	0	0
2481:	0	0	0	0	1	0	0	1
2489:	0	0	0	0	1	1	1	0
2497:	0	0	0	0	0	0	0	0
2505:	0	0	1	0	0	0	0	0
2513:	0	0	1	1	1	0	0	0
2521:	0	1	0	0	0	1	0	0
2529:	0	0	0	0	1	0	0	0
2537:	0	0	1	0	0	0	0	1
2545:	0	0	0	0	0	0	0	0
2553:	0	0	0	0	0	0	1	0
2561:	0	0	0	0	0	0	1	0
2569:	0	0	1	0	0	0	0	0
2577:	0	0	1	1	0	0	0	2
2585:	0	0	0	0	0	0	0	0
2593:	0	0	0	0	2	0	1	0
2601:	0	0	0	1	0	0	1	0
2609:	0	1	0	0	0	0	1	1
2617:	0	0	0	0	1	0	1	0
2625:	0	0	0	0	0	0	0	0
2633:	0	1	0	0	0	0	0	0
2641:	0	0	1	1	0	0	0	0
2649:	0	0	0	0	1	0	1	0
2657:	0	0	1	1	0	1	0	0
2665:	0	0	0	0	1	1	0	0
2673:	0	0	0	0	0	1	0	0
2681:	0	0	0	0	0	0	1	1
2689:	1	1	0	0	1	1	0	0
2697:	0	0	0	0	1	0	0	0
2705:	0	0	1	1	0	0	0	0
2713:	0	0	0	0	0	0	1	0
2721:	0	0	0	0	0	0	0	1
2729:	0	0	0	0	0	1	1	0
2737:	0	1	0	0	0	0	0	0
2745:	0	0	0	0	0	0	0	0
2753:	0	0	0	2	0	0	0	0
2761:	0	1	0	0	1	0	0	0
2769:	2	0	0	0	1	0	0	0
2777:	0	0	1	0	0	0	1	1
2785:	0	0	0	0	0	0	0	0
2793:	0	0	0	1	1	0	0	0
2801:	0	0	0	1	0	0	0	1
2809:	0	0	0	0	0	0	0	0
2817:	0	0	0	1	0	0	0	1
2825:	0	0	1	0	0	0	1	1

2833:	0	1	0	1	0	0	0	0
2841:	0	0	0	1	0	0	1	0
2849:	0	0	0	0	0	1	0	0
2857:	0	0	0	1	2	0	0	0
2865:	0	0	0	0	0	0	0	1
2873:	0	0	0	1	0	0	0	0
2881:	0	0	0	1	1	0	0	0
2889:	0	0	0	1	0	0	0	0
2897:	0	0	1	0	1	0	0	2
2905:	0	0	0	0	0	0	0	0
2913:	0	0	0	0	0	0	0	0
2921:	1	0	0	0	0	0	1	0
2929:	1	0	1	0	0	0	0	0
2937:	0	0	1	0	0	0	0	0
2945:	0	0	0	0	0	0	0	0
2953:	0	0	0	0	0	0	1	0
2961:	0	0	1	0	1	0	0	0
2969:	0	0	0	1	0	1	0	0
2977:	1	0	0	1	0	1	0	0
2985:	0	0	0	0	1	0	0	1
2993:	0	0	0	0	1	1	0	0
3001:	2	0	1	0	0	1	0	0
3009:	0	0	0	1	0	0	0	0
3017:	0	0	0	0	0	0	0	0
3025:	1	0	0	0	0	1	0	0
3033:	0	0	0	0	0	0	0	1
3041:	1	1	0	0	0	0	0	0
3049:	0	0	0	0	0	1	0	0
3057:	0	0	0	0	0	0	0	0
3065:	0	0	0	0	0	0	0	0
3073:	0	0	1	0	0	0	1	0
3081:	1	0	0	0	0	0	0	0
3089:	0	0	0	0	0	0	0	0
3097:	0	0	0	0	0	0	0	0
3105:	0	0	0	0	0	0	0	0
3113:	0	0	0	0	0	0	0	0
3121:	0	0	0	0	0	1	0	0
3129:	0	0	1	1	0	0	1	0
3137:	0	0	1	0	0	0	0	0
3145:	0	0	0	0	0	0	0	0
3153:	0	0	0	0	0	1	0	0
3161:	0	0	0	0	0	0	0	1
3169:	0	1	0	0	0	0	0	0
3177:	0	0	0	0	0	0	0	0
3185:	0	0	0	0	0	0	0	0
3193:	0	0	0	0	0	0	0	0
3201:	0	0	0	0	1	1	0	0
3209:	0	1	0	0	0	0	0	0
3217:	1	0	0	0	0	0	0	0
3225:	0	1	0	0	0	1	0	0
3233:	0	1	0	0	0	0	0	0
3241:	0	0	0	0	0	1	0	0
3249:	0	1	0	0	0	0	0	0
3257:	0	0	0	0	0	0	0	1
3265:	0	0	1	0	0	0	0	0
3273:	0	1	0	0	0	0	1	0
3281:	0	0	1	1	0	0	0	0
3289:	0	0	0	1	0	0	0	0
3297:	0	0	0	2	0	1	0	0
3305:	0	0	1	0	0	1	0	0

3313:	0	0	0	0	0	0	0	0
3321:	0	0	0	0	1	0	0	1
3329:	0	0	0	0	0	1	1	0
3337:	0	0	0	0	0	0	0	0
3345:	0	0	0	0	0	0	0	1
3353:	1	0	0	0	0	0	1	0
3361:	0	0	0	0	0	0	0	0
3369:	0	1	0	0	0	0	0	0
3377:	0	0	1	0	0	0	0	0
3385:	0	0	0	1	0	0	1	0
3393:	0	0	0	0	0	0	1	0
3401:	0	0	0	0	0	1	0	1
3409:	0	0	0	1	0	0	0	0
3417:	0	0	0	0	0	0	0	0
3425:	0	1	0	0	0	0	0	0
3433:	0	0	0	0	1	0	1	0
3441:	0	0	0	0	0	0	0	0
3449:	0	0	0	0	0	0	0	1
3457:	1	0	0	1	0	0	0	0
3465:	0	0	0	0	1	0	0	0
3473:	1	0	0	0	0	0	0	0
3481:	0	0	0	0	1	1	0	0
3489:	0	1	0	0	0	1	0	0
3497:	0	0	0	0	0	0	0	0
3505:	0	0	0	0	1	0	0	0
3513:	0	0	0	0	1	0	0	0
3521:	0	0	0	0	0	0	0	0
3529:	0	0	0	0	0	0	0	0
3537:	0	0	0	0	0	0	0	0
3545:	0	0	0	1	0	0	0	0
3553:	2	0	0	1	0	1	0	0
3561:	0	0	0	0	1	0	0	0
3569:	0	0	0	0	0	0	0	0
3577:	0	0	0	0	0	0	1	0
3585:	1	0	0	0	0	0	0	0
3593:	1	0	0	0	0	0	0	0
3601:	0	0	0	0	1	1	0	0
3609:	0	0	0	0	0	0	0	0
3617:	0	0	0	0	0	0	0	1
3625:	0	0	0	0	0	0	0	0
3633:	0	0	1	0	0	0	0	0
3641:	0	0	0	0	0	0	0	1
3649:	0	0	0	0	1	0	0	0
3657:	0	0	1	0	1	0	0	0
3665:	0	0	1	0	0	0	0	0
3673:	0	0	1	2	0	0	0	0
3681:	0	1	0	0	0	0	0	1
3689:	0	0	0	0	0	0	0	1
3697:	1	0	0	0	0	0	0	0
3705:	0	0	0	1	0	0	0	0
3713:	0	0	0	0	0	0	0	0
3721:	0	1	0	0	0	0	1	0
3729:	0	0	0	0	0	0	0	0
3737:	0	0	0	0	1	1	1	0
3745:	0	0	0	0	0	0	0	0
3753:	0	0	0	0	0	0	0	0
3761:	0	0	0	0	0	0	0	0
3769:	0	0	0	0	0	1	0	0
3777:	0	0	0	0	0	0	0	0
3785:	1	0	0	0	0	0	0	0

3793:	0	0	0	0	0	0	0	0
3801:	0	0	0	0	0	0	0	0
3809:	0	0	0	0	0	0	0	0
3817:	0	0	1	0	0	0	0	0
3825:	0	0	0	0	0	0	0	0
3833:	0	1	0	0	0	0	0	0
3841:	0	0	0	0	0	0	0	1
3849:	0	0	0	0	0	0	0	0
3857:	1	1	0	0	0	1	0	0
3865:	0	0	0	0	0	0	1	0
3873:	0	1	0	0	1	0	0	0
3881:	0	0	0	0	0	1	0	0
3889:	0	0	0	0	0	0	0	0
3897:	0	0	1	0	0	0	0	0
3905:	0	0	0	0	0	0	0	1
3913:	1	0	0	0	0	1	0	0
3921:	0	0	0	0	0	0	0	0
3929:	0	1	0	1	0	1	0	0
3937:	1	1	0	0	0	0	0	0
3945:	0	0	1	0	0	0	0	0
3953:	0	0	0	0	0	0	0	0
3961:	0	0	0	0	0	0	1	1
3969:	1	0	0	0	0	0	0	0
3977:	0	0	0	1	0	0	0	0
3985:	0	0	0	0	1	0	0	0
3993:	0	0	0	0	0	0	0	0
4001:	0	0	0	0	1	0	0	0
4009:	0	0	0	0	0	0	0	0
4017:	0	0	0	0	0	1	0	0
4025:	0	0	0	0	0	0	0	0
4033:	0	0	0	0	0	0	0	0
4041:	0	0	0	0	0	0	0	0
4049:	0	1	0	0	1	0	0	0
4057:	0	0	0	0	0	0	0	1
4065:	0	0	0	0	0	0	0	0
4073:	0	0	0	0	0	0	0	0
4081:	0	0	0	0	0	0	0	0
4089:	0	0	1	0	0	0	0	0

Sample ID : 1111068-03

Acquisition date : 11-DEC-2011 13:21:17

VAX/VMS Peak Search Report Generated 11-DEC-2011 14:21:35.40

AG
12/11/11

Configuration : DKA100: [GAMMA.SCUSR.ARCHIVE] SMP_111106803_GE1_GAS1102_172280.
 Analyses by : PEAK V16.9 ENBACK V1.6 PEAKEFF V2.2
 Client ID : BKGD E-31-111107
 Deposition Date :
 Sample Date : 7-NOV-2011 00:00:00. Acquisition date : 11-DEC-2011 13:21:17
 Sample ID : 1111068-03 Sample Quantity : 3.87480E+02 GRAM
 Sample type : SOIL Sample Geometry : 0
 Detector name : GE1 Detector Geometry: GAS-1102
 Elapsed live time: 0 01:00:00.00 Elapsed real time: 0 01:00:05.87 0.2%
 Start channel : 5 End channel : 4096
 Sensitivity : 2.40000 Gaussian : 15.00000
 Critical level : Yes

Post-NID Peak Search Report

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides
0	46.59*	1297	2348	1.83	46.21	43	6	13.1		PB-210
0	53.65	173	3025	1.00	53.28	51	6	101.8		
0	63.35*	821	4030	1.32	62.97	60	6	25.5		TH-234
0	76.82*	8699	7653	2.92	76.45	72	11	4.5		
1	84.31*	476	2752	1.29	83.94	82	21	30.4	9.13E+01	
1	87.51	1491	3023	1.58	87.14	82	21	12.0		NP-237 SN-126 CD-109
1	90.51	746	2661	1.58	90.14	82	21	23.5		
1	95.36	298	1747	1.44	95.00	82	21	47.8		
0	143.98*	208	2788	1.30	143.62	141	7	85.5		CE-141
0	154.93	167	1997	1.14	154.58	153	5	82.0		
0	186.52*	2314	2921	1.51	186.18	182	9	9.5		RA-226
3	239.15*	583	1200	1.38	238.81	237	10	18.2	3.92E+00	PB-212
3	242.39	2486	1231	1.54	242.06	237	10	5.9		RA-224
4	256.43	174	1192	2.36	256.09	253	10	69.2	2.61E+00	
4	259.36	211	1032	2.09	259.03	253	10	51.0		
0	271.90	703	2102	3.38	271.57	266	13	27.9		LU-173
2	295.63*	5421	764	1.51	295.31	290	22	3.1	1.55E+00	PB-214
2	299.98	218	842	1.99	299.65	290	22	46.5		PB-212
0	316.42	85	773	4.04	316.11	313	6	105.9		
0	338.58*	180	1122	1.85	338.27	335	8	66.5		AC-228
4	352.31*	9053	543	1.65	352.00	348	11	2.3	5.36E+00	PB-214
4	355.73	307	662	2.26	355.42	348	11	63.6		
0	388.52	127	695	4.31	388.21	385	7	70.9		
0	462.16	168	615	2.60	461.87	458	9	55.2		
0	480.69	97	517	2.09	480.41	477	8	84.1		
0	487.91	80	378	2.18	487.63	485	6	80.7		
0	511.75*	152	596	1.88	511.47	507	10	64.2		
0	583.51*	244	490	2.12	583.25	577	10	36.5		TL-208
3	609.71*	6559	226	1.75	609.45	604	15	2.6	3.51E+00	BI-214
3	613.64	175	251	2.46	613.39	604	15	73.2		
4	665.85	184	211	1.74	665.60	660	10	27.5	3.89E+00	
0	671.54	43	219	1.66	671.30	669	6	113.4		
0	703.25*	155	618	10.96	703.01	694	19	79.3		
0	723.70	75	455	9.30	723.47	717	14	123.6		

AG
12/12/11

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides
0	734.56	44	176	3.27	734.33	732	6	99.7		
0	768.54	710	382	2.21	768.32	763	12	13.3		
0	786.78	136	316	2.04	786.56	782	10	51.7		
0	806.81	163	301	2.13	806.59	802	9	41.4		
0	831.75	33	168	3.08	831.54	830		5123.0		
0	839.42	75	248	1.90	839.21	836	7	73.0		
0	879.82	52	256	2.73	879.62	874		9114.2		
3	911.58*	156	211	1.98	911.38	907	13	33.3	1.39E+00	AC-228
3	915.84	48	234	2.27	915.65	907		13114.4		
0	934.54	324	267	1.87	934.35	930	10	21.9		
3	964.81	66	215	2.69	964.62	958	14	81.8	2.42E+00	
3	969.25*	96	152	2.06	969.07	958	14	46.2		AC-228
0	1001.57*	47	169	2.30	1001.39	998	6	92.2		PA-234M
0	1041.17	50	153	3.80	1041.00	1038	8	90.4		
0	1103.16	43	148	4.90	1103.00	1100		7100.0		
0	1120.67	1389	271	2.17	1120.52	1116	11	7.0		BI-214
0	1135.07	40	161	4.50	1134.92	1131		8115.8		
0	1155.12	159	192	2.34	1154.97	1151	9	35.0		
0	1207.11	92	235	2.95	1206.98	1201	12	69.5		
0	1238.85	566	231	2.26	1238.73	1232	14	14.3		
0	1287.45	258	483	2.41	1287.33	1277	34	54.1		
3	1378.17	370	91	2.30	1378.07	1373	18	13.3	1.52E+00	
3	1385.64	93	94	2.91	1385.54	1373	18	47.0		
2	1401.83	127	97	2.38	1401.74	1397	20	30.8	2.07E+00	
2	1408.21	214	103	2.37	1408.12	1397	20	20.7		
0	1461.08*	715	175	2.34	1461.00	1456	11	10.4		K-40
0	1478.96	35	83	3.66	1478.88	1476	8	95.7		
0	1509.55	156	142	2.30	1509.48	1506	9	31.9		
0	1544.31	38	124	1.28	1544.25	1541		9112.5		
0	1582.84	42	114	2.39	1582.78	1579	10	99.0		
0	1598.82	121	132	5.27	1598.77	1591	19	49.1		
0	1661.11	83	74	2.35	1661.08	1655	11	45.8		
0	1729.96	250	84	2.34	1729.94	1723	14	20.0		
0	1764.94*	1162	73	2.53	1764.93	1758	14	6.7		BI-214
4	1839.09	23	22	3.42	1839.08	1832	28	99.9	2.65E+00	
4	1847.72	201	25	2.76	1847.72	1832	28	16.1		
4	1854.36	19	38	3.43	1854.36	1832		28130.9		
0	1874.25	22	33	2.02	1874.25	1870	8	99.2		
0	1938.70	58	39	9.02	1938.72	1932	17	55.5		
0	2054.02	12	4	2.27	2054.06	2051	6	77.9		
0	2062.14	26	3	7.86	2062.19	2057	12	48.1		
4	2088.83	14	4	3.53	2088.88	2086	12	74.7	1.80E+00	
4	2094.61	12	1	3.53	2094.66	2086	12	72.6		
0	2118.84	123	2	3.06	2118.90	2114	12	18.9		
0	2166.24	5	2	2.66	2166.31	2164		5123.7		
5	2204.34*	289	22	2.52	2204.42	2197	14	13.0	3.13E+00	BI-214
0	2295.18	11	8	2.48	2295.27	2289		8110.7		
0	2363.77	9	4	3.62	2363.88	2360		7100.2		
0	2447.70	97	10	2.41	2447.83	2441	14	24.6		
0	2508.11	8	2	1.05	2508.25	2504	7	92.6		
0	2588.85	9	0	1.92	2589.00	2585	7	66.7		

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides
0	2614.54*	112	0	2.99	2614.70	2610	12	19.4		TL-208

Total number of lines in spectrum 86
 Number of unidentified lines 48
 Number of lines tentatively identified by NID 38 44.19%

Nuclide Type : NATURAL

Nuclide	Hlife	Decay	Wtd Mean		Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
			Uncorrected pCi/GRAM	Decay Corr pCi/GRAM			
K-40	1.28E+09Y	1.00	2.584E+01	2.584E+01	0.361E+01	13.98	
TL-208	1.41E+10Y	1.00	1.648E+00	1.648E+00	0.314E+00	19.05	
PB-210	22.26Y	1.00	2.375E+01	2.382E+01	0.375E+01	15.73	
PB-212	1.41E+10Y	1.00	1.266E+00	1.266E+00	0.258E+00	20.37	
BI-214	1602.00Y	1.00	2.930E+01	2.930E+01	0.174E+01	5.93	
PB-214	1602.00Y	1.00	3.117E+01	3.117E+01	0.210E+01	6.74	
RA-224	1.41E+10Y	1.00	6.136E+01	6.136E+01	0.666E+01	10.85	
RA-226	1602.00Y	1.00	5.921E+01	5.921E+01	10.86E+01	183.39	
AC-228	1.41E+10Y	1.00	1.602E+00	1.602E+00	0.413E+00	25.79	
PA-234M	4.47E+09Y	1.00	1.499E+01	1.499E+01	1.389E+01	92.64	
TH-234	4.47E+09Y	1.00	1.451E+01	1.451E+01	0.390E+01	26.89	
Total Activity :			2.646E+02	2.647E+02			

Nuclide Type : FISSION

Nuclide	Hlife	Decay	Wtd Mean		Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
			Uncorrected pCi/GRAM	Decay Corr pCi/GRAM			
CD-109	464.00D	1.05	2.650E+01	2.791E+01	0.480E+01	17.19	
SN-126	1.00E+05Y	1.00	2.663E+00	2.663E+00	0.429E+00	16.11	
CE-141	32.50D	2.09	3.214E-01	6.719E-01	6.014E-01	89.51	
NP-237	2.14E+06Y	1.00	7.814E+00	7.814E+00	1.253E+00	16.03	
Total Activity :			3.730E+01	3.906E+01			

Nuclide Type : ACTIVATION

Nuclide	Hlife	Decay	Wtd Mean		Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
			Uncorrected pCi/GRAM	Decay Corr pCi/GRAM			
LU-173	1.37Y	1.05	3.501E+00	3.672E+00	1.076E+00	29.31	
Total Activity :			3.501E+00	3.672E+00			

Grand Total Activity : 3.054E+02 3.074E+02

Flags: "K" = Keyline not found "M" = Manually accepted
 "E" = Manually edited "A" = Nuclide specific abn. limit

Nuclide Type: NATURAL

Nuclide	Energy	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error	Status
K-40	1460.81	10.67*	5.027E-01	2.584E+01	2.584E+01	13.98	OK
Final Mean for 1 Valid Peaks = 2.584E+01+/- 3.613E+00 (13.98%)							
TL-208	583.14	30.22*	1.029E+00	1.520E+00	1.520E+00	37.83	OK
	860.37	4.48	7.505E-01	----- Line Not Found		-----	Absent
	2614.66	35.85	3.563E-01	1.702E+00	1.702E+00	22.01	OK
Final Mean for 2 Valid Peaks = 1.648E+00+/- 3.139E-01 (19.05%)							
PB-210	46.50	4.05*	2.613E+00	2.375E+01	2.382E+01	15.73	OK
Final Mean for 1 Valid Peaks = 2.382E+01+/- 3.748E+00 (15.73%)							
PB-212	238.63	44.60*	2.000E+00	1.266E+00	1.266E+00	20.37	OK
	300.09	3.41	1.716E+00	7.216E+00	7.216E+00	47.40	<<WM N-Sigma
Final Mean for 1 Valid Peaks = 1.266E+00+/- 2.578E-01 (20.37%)							
BI-214	609.31	46.30*	9.927E-01	2.765E+01	2.765E+01	10.45	OK
	1120.29	15.10	6.104E-01	2.921E+01	2.921E+01	11.52	OK
	1764.49	15.80	4.432E-01	3.216E+01	3.216E+01	11.19	OK
	2204.22	4.98	3.885E-01	2.895E+01	2.895E+01	16.21	OK
Final Mean for 4 Valid Peaks = 2.930E+01+/- 1.738E+00 (5.93%)							
PB-214	295.21	19.19	1.736E+00	3.152E+01	3.152E+01	9.62	OK
	351.92	37.19*	1.529E+00	3.084E+01	3.084E+01	9.46	OK
Final Mean for 2 Valid Peaks = 3.117E+01+/- 2.102E+00 (6.74%)							
RA-224	240.98	3.95*	1.987E+00	6.136E+01	6.136E+01	10.85	OK
Final Mean for 1 Valid Peaks = 6.136E+01+/- 6.658E+00 (10.85%)							
RA-226	186.21	3.28*	2.308E+00	5.921E+01	5.921E+01	183.39	OK
Final Mean for 1 Valid Peaks = 5.921E+01+/- 1.086E+02 (183.39%)							
AC-228	338.32	11.40	1.575E+00	1.942E+00	1.942E+00	67.12	OK
	911.07	27.70*	7.170E-01	1.526E+00	1.526E+00	34.51	OK
	969.11	16.60	6.829E-01	1.648E+00	1.648E+00	47.10	OK
Final Mean for 3 Valid Peaks = 1.602E+00+/- 4.132E-01 (25.79%)							
PA-234M	1001.03	0.92*	6.658E-01	1.499E+01	1.499E+01	92.64	OK
Final Mean for 1 Valid Peaks = 1.499E+01+/- 1.389E+01 (92.64%)							

Nuclide Type: NATURAL

Nuclide	Energy	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error	Status
TH-234	63.29	3.80*	2.884E+00	1.451E+01	1.451E+01	26.89	OK

Final Mean for 1 Valid Peaks = 1.451E+01+/- 3.901E+00 (26.89%)

Nuclide Type: FISSION

Nuclide	Energy	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error	Status
CD-109	88.03	3.72*	2.931E+00	2.650E+01	2.791E+01	17.19	OK

Final Mean for 1 Valid Peaks = 2.791E+01+/- 4.797E+00 (17.19%)

SN-126	87.57	37.00*	2.932E+00	2.663E+00	2.663E+00	16.11	OK
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Final Mean for 1 Valid Peaks = 2.663E+00+/- 4.290E-01 (16.11%)

CE-141	145.44	48.40*	2.589E+00	3.214E-01	6.719E-01	89.51	OK
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Final Mean for 1 Valid Peaks = 6.719E-01+/- 6.014E-01 (89.51%)

NP-237	86.50	12.60*	2.935E+00	7.814E+00	7.814E+00	16.03	OK
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Final Mean for 1 Valid Peaks = 7.814E+00+/- 1.253E+00 (16.03%)

Nuclide Type: ACTIVATION

Nuclide	Energy	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error	Status
LU-173	100.72	5.24	2.881E+00	-----	Line Not Found	-----	Absent
	272.11	21.20*	1.836E+00	3.501E+00	3.672E+00	29.31	OK

Final Mean for 1 Valid Peaks = 3.672E+00+/- 1.076E+00 (29.31%)

Flag: "*" = Keyline

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.584E+01	3.613E+00	1.810E+00	1.535E-01	14.275
CD-109	2.791E+01	4.797E+00	4.202E+00	4.880E-01	6.641
SN-126	2.663E+00	4.290E-01	4.010E-01	3.985E-02	6.643
CE-141	6.719E-01	6.014E-01	6.517E-01	1.700E-01	1.031
LU-173	3.672E+00	1.076E+00	7.164E-01	5.821E-02	5.126
TL-208	1.648E+00	3.139E-01	5.029E-01	4.651E-02	3.277
PB-210	2.382E+01	3.748E+00	3.558E+00	2.746E-01	6.694
PB-212	1.266E+00	2.578E-01	3.801E-01	3.112E-02	3.330
BI-214	2.930E+01	1.738E+00	3.243E-01	3.016E-02	90.333
PB-214	3.117E+01	2.102E+00	4.057E-01	3.356E-02	76.821
RA-224	6.136E+01	6.658E+00	4.039E+00	3.307E-01	15.189
RA-226	5.921E+01	1.086E+02	4.785E+00	8.762E+00	12.374
AC-228	1.602E+00	4.132E-01	7.044E-01	5.598E-02	2.274
PA-234M	1.499E+01	1.389E+01	2.092E+01	1.696E+00	0.717
TH-234	1.451E+01	3.901E+00	4.411E+00	3.268E-01	3.289
NP-237	7.814E+00	1.253E+00	1.176E+00	1.154E-01	6.646

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-1.547E-01		1.408E+00	2.200E+00	1.939E-01	-0.070
NA-22	-2.349E-02		1.242E-01	1.853E-01	1.517E-02	-0.127
AL-26	2.184E-02		6.622E-02	1.219E-01	9.740E-03	0.179
TI-44	4.419E-02		1.395E-01	1.871E-01	1.466E-02	0.236
SC-46	1.254E-01		1.452E-01	2.579E-01	2.064E-02	0.486
V-48	9.599E-02		4.763E-01	8.238E-01	6.658E-02	0.117
CR-51	-1.005E-01		2.414E+00	3.510E+00	3.061E-01	-0.029
MN-54	1.252E-04		1.615E-01	1.965E-01	1.668E-02	0.001
CO-56	1.200E-02		1.550E-01	2.399E-01	2.012E-02	0.050
CO-57	-4.397E-02		1.065E-01	1.714E-01	1.655E-02	-0.257
CO-58	3.272E-02		1.585E-01	2.473E-01	2.149E-02	0.132
FE-59	2.261E-01		3.709E-01	5.897E-01	5.259E-02	0.383
CO-60	-2.162E-03		1.171E-01	1.985E-01	1.623E-02	-0.011
ZN-65	4.896E-02		2.855E-01	4.387E-01	3.595E-02	0.112
SE-75	-4.646E-04		2.235E-01	2.864E-01	2.351E-02	-0.002
RB-82	4.352E-01		2.164E+00	3.113E+00	2.767E-01	0.140
RB-83	2.327E-01		2.646E-01	4.283E-01	6.795E-02	0.543
KR-85	4.326E+01		2.173E+01	3.939E+01	3.547E+00	1.098
SR-85	2.720E-01		1.366E-01	2.477E-01	2.231E-02	1.098
Y-88	7.431E-02		9.296E-02	1.856E-01	1.475E-02	0.400
NB-93M	-1.349E+01		3.238E+00	6.172E-02	1.373E-02	-218.530
NB-94	-1.316E-01		1.212E-01	1.721E-01	1.407E-02	-0.765
NB-95	1.715E+00		3.073E-01	5.293E-01	4.741E-02	3.240
ZR-95	1.946E-02		2.570E-01	4.446E-01	4.375E-02	0.044
RU-103	-1.533E-01		1.704E-01	2.852E-01	4.092E-02	-0.538
RU-106	-2.436E-01		9.832E-01	1.514E+00	2.092E-01	-0.161
AG-108M	1.848E-01	+	2.292E-01	1.747E-01	1.599E-02	1.058

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AG-110M	4.419E-02		1.096E-01	1.750E-01	1.634E-02	0.253
SN-113	1.838E-01		1.848E-01	3.001E-01	2.547E-02	0.613
TE123M	1.135E-01		1.476E-01	2.225E-01	1.842E-02	0.510
SB-124	-3.732E-03		1.535E-01	2.390E-01	2.220E-02	-0.016
I-125	2.260E-02		2.047E+00	3.415E+00	3.098E-01	0.007
SB-125	7.027E-02		3.213E-01	5.636E-01	4.881E-02	0.125
SB-126	4.387E-01		1.335E+00	2.108E+00	1.932E-01	0.208
I-129	-1.609E-01		1.779E-01	2.907E-01	3.052E-02	-0.554
I-131	-1.512E+00		1.960E+00	3.358E+00	2.775E-01	-0.450
BA-133	6.585E-01	+	4.281E-01	3.896E-01	5.055E-02	1.690
CS-134	1.714E-01		1.114E-01	1.842E-01	1.715E-02	0.931
CS-135	1.052E+00		6.430E-01	9.798E-01	7.974E-02	1.074
CS-136	-4.719E-01		9.585E-01	1.407E+00	1.188E-01	-0.335
CS-137	7.715E-02		1.185E-01	1.903E-01	1.780E-02	0.405
LA-138	8.167E-02		1.714E-01	2.998E-01	2.464E-02	0.272
CE-139	-4.253E-03		1.396E-01	2.246E-01	1.796E-02	-0.019
BA-140	8.114E-02		2.259E+00	3.937E+00	1.310E+00	0.021
LA-140	1.354E+00		8.274E-01	1.492E+00	1.224E-01	0.907
CE-144	-4.137E-01		8.882E-01	1.425E+00	1.317E-01	-0.290
PM-144	7.544E-02		1.082E-01	1.745E-01	1.617E-02	0.432
PM-145	-3.858E-01		4.806E-01	6.701E-01	4.363E-01	-0.576
PM-146	3.238E-01		2.453E-01	4.023E-01	3.488E-02	0.805
ND-147	1.460E+00		5.677E+00	9.982E+00	9.063E-01	0.146
EU-152	5.409E+00	+	1.275E+00	2.126E+00	2.251E-01	2.544
GD-153	-3.224E-01		4.277E-01	6.308E-01	6.172E-02	-0.511
EU-154	-5.961E-02		3.437E-01	5.137E-01	4.204E-02	-0.116
EU-155	3.229E+00	+	5.176E-01	6.622E-01	6.499E-02	4.876
EU-156	8.229E-01		5.192E+00	8.078E+00	1.846E+00	0.102
HO-166M	-1.407E-01		1.954E-01	2.613E-01	2.404E-02	-0.539
HF-172	-4.247E-01		7.886E-01	1.265E+00	1.203E-01	-0.336
LU-172	9.930E-01		6.555E+00	1.076E+01	8.803E-01	0.092
HF-175	-5.754E-02		2.057E-01	2.568E-01	2.124E-02	-0.224
LU-176	-1.457E-01		1.079E-01	1.482E-01	1.216E-02	-0.983
TA-182	1.559E+01	+	1.795E+00	2.066E+00	1.691E-01	7.546
IR-192	7.040E-02		2.681E-01	4.260E-01	3.732E-02	0.165
HG-203	1.083E-01		2.193E-01	3.256E-01	2.722E-02	0.333
BI-207	4.322E-02		8.965E-02	1.585E-01	1.460E-02	0.273
BI-210M	2.243E-01		2.464E-01	3.271E-01	2.668E-02	0.686
PB-211	4.317E+00		3.315E+00	5.924E+00	4.926E-01	0.729
BI-212	-4.145E-03		8.844E-01	1.370E+00	1.252E-01	-0.003
RN-219	8.873E-01		1.451E+00	2.566E+00	2.127E-01	0.346
RA-223	-3.170E-01		2.392E+00	3.776E+00	3.114E-01	-0.084
RA-225	-6.231E-01		1.509E+00	2.299E+00	1.924E-01	-0.271
TH-227	1.230E+00		9.997E-01	1.503E+00	1.231E-01	0.818
TH-230	1.398E+01		3.124E+01	4.765E+01	3.723E+00	0.293
PA-231	1.807E+00		4.505E+00	6.657E+00	5.454E-01	0.272
TH-231	9.534E-01		8.684E-01	1.468E+00	1.794E-01	0.649
PA-233	-5.747E-01		7.447E-01	8.968E-01	2.000E-01	-0.641

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PA-234	-1.612E-01		4.288E-01	6.894E-01	6.429E-02	-0.234
U-235	1.475E+00	+	1.289E+00	1.509E+00	2.660E-01	0.977
AM-241	5.819E-01		3.255E-01	4.501E-01	3.188E-02	1.293
AM-243	3.561E+00		3.956E-01	3.825E-01	3.256E-02	9.309
CM-243	4.976E-01		7.336E-01	1.095E+00	8.871E-02	0.455

Total number of lines in spectrum 86
 Number of unidentified lines 48
 Number of lines tentatively identified by NID 38 44.19%

Nuclide Type : NATURAL

Nuclide	Hlife	Decay	Wtd Mean		Decay Corr 2-Sigma Error	2-Sigma	Flags
			Uncorrected pCi/GRAM	Decay Corr pCi/GRAM			
K-40	1.28E+09Y	1.00	2.584E+01	2.584E+01	0.361E+01	13.98	
TL-208	1.41E+10Y	1.00	1.648E+00	1.648E+00	0.314E+00	19.05	
PB-210	22.26Y	1.00	2.375E+01	2.382E+01	0.375E+01	15.73	
PB-212	1.41E+10Y	1.00	1.266E+00	1.266E+00	0.258E+00	20.37	
BI-214	1602.00Y	1.00	2.930E+01	2.930E+01	0.174E+01	5.93	
PB-214	1602.00Y	1.00	3.117E+01	3.117E+01	0.210E+01	6.74	
RA-224	1.41E+10Y	1.00	6.136E+01	6.136E+01	0.666E+01	10.85	
RA-226	1602.00Y	1.00	5.921E+01	5.921E+01	10.86E+01	183.39	
AC-228	1.41E+10Y	1.00	1.602E+00	1.602E+00	0.413E+00	25.79	
PA-234M	4.47E+09Y	1.00	1.499E+01	1.499E+01	1.389E+01	92.64	
TH-234	4.47E+09Y	1.00	1.451E+01	1.451E+01	0.390E+01	26.89	
Total Activity :			2.646E+02	2.647E+02			

Nuclide Type : FISSION

Nuclide	Hlife	Decay	Wtd Mean		Decay Corr 2-Sigma Error	2-Sigma	Flags
			Uncorrected pCi/GRAM	Decay Corr pCi/GRAM			
CD-109	464.00D	1.05	2.650E+01	2.791E+01	0.480E+01	17.19	
SN-126	1.00E+05Y	1.00	2.663E+00	2.663E+00	0.429E+00	16.11	
CE-141	32.50D	2.09	3.214E-01	6.719E-01	6.014E-01	89.51	
NP-237	2.14E+06Y	1.00	7.814E+00	7.814E+00	1.253E+00	16.03	
Total Activity :			3.730E+01	3.906E+01			

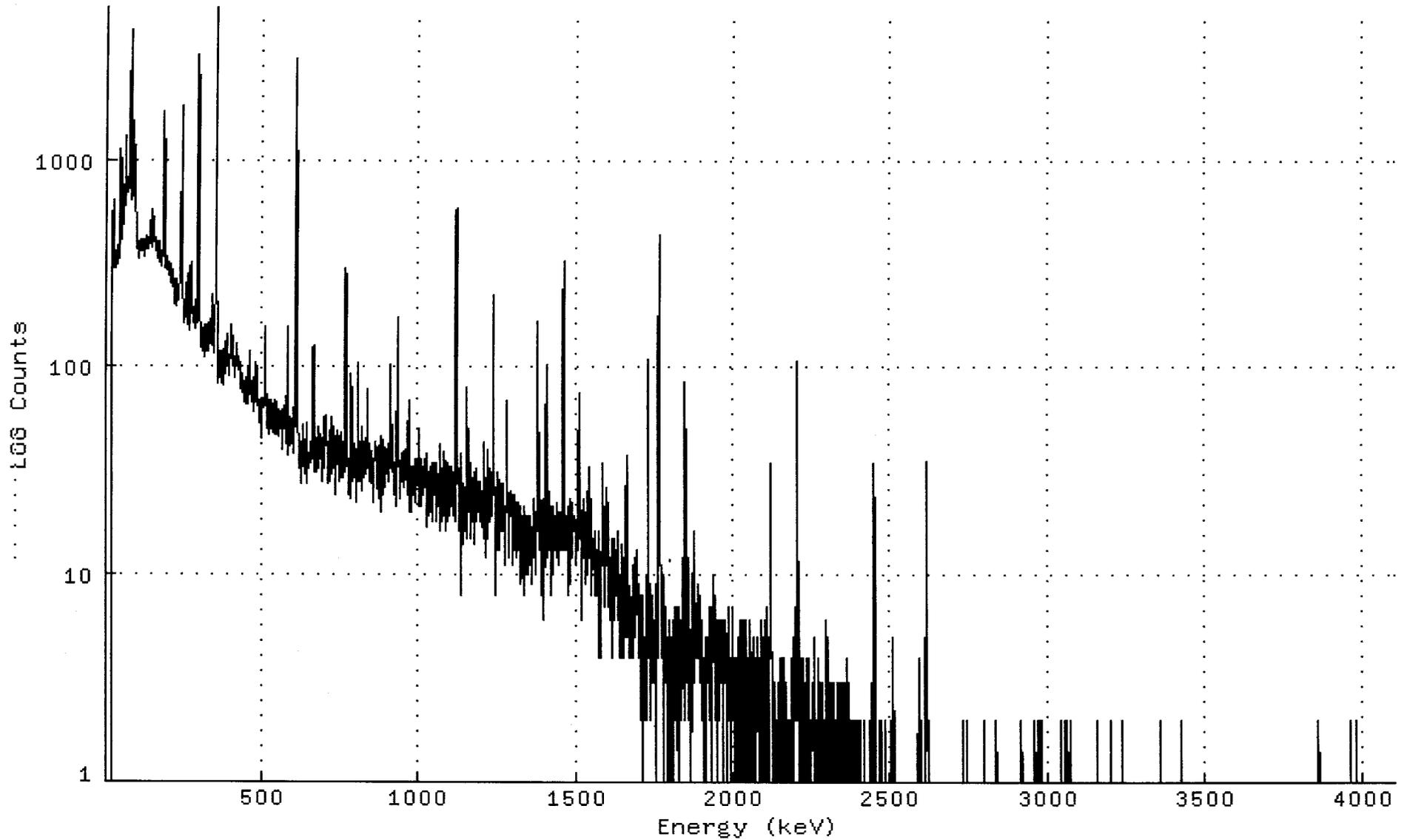
Nuclide Type : ACTIVATION

Nuclide	Hlife	Decay	Wtd Mean		Decay Corr 2-Sigma Error	2-Sigma	Flags
			Uncorrected pCi/GRAM	Decay Corr pCi/GRAM			
LU-173	1.37Y	1.05	3.501E+00	3.672E+00	1.076E+00	29.31	
Total Activity :			3.501E+00	3.672E+00			

Grand Total Activity : 3.054E+02 3.074E+02

Flags: "K" = Keyline not found "M" = Manually accepted
 "E" = Manually edited "A" = Nuclide specific abn. limit

Spectrum : DKA100:[GAMMA.SCUSR.ARCHIVE]SMP_111106803_GE1_GAS1102_172280.CNF;1
Title :
Sample Title: BKGD E-31-111107
Start Time: 11-DEC-2011 13:21 Sample Time: 7-NOV-2011 00:00: Energy Offset: 3.84457E-01
Real Time : 0 01:00:05.87 Sample ID : 1111068-03 Energy Slope : 9.99792E-01
Live Time : 0 01:00:00.00 Sample Type: SOIL Energy Quad : 0.00000E+00



Channel Contents for DKA100:[GAMMA.SCUSR.ARCHIVE]SMP_111106803_GE1_GAS1102_1722

Channel

1:	0	0	0	0	0	0	0	0
9:	0	0	0	0	0	0	0	0
17:	0	0	260	352	325	491	628	502
25:	326	308	333	296	302	317	294	354
33:	316	330	307	314	366	308	341	382
41:	328	351	378	418	472	1101	923	403
49:	427	544	472	476	745	530	494	481
57:	522	571	595	667	664	744	1289	893
65:	686	721	805	807	713	728	767	707
73:	788	1512	2626	1668	4102	1781	888	817
81:	849	622	709	1048	655	686	1507	1108
89:	693	935	588	957	1141	666	622	466
97:	479	476	437	409	385	328	373	366
105:	369	386	396	384	390	359	401	392
113:	406	382	407	377	384	369	372	332
121:	376	407	363	356	396	368	412	372
129:	424	377	379	364	376	414	378	403
137:	377	398	386	398	391	399	447	566
145:	424	405	376	426	410	437	456	422
153:	397	524	432	408	403	383	360	376
161:	399	325	375	399	345	359	329	360
169:	393	323	333	318	333	355	303	344
177:	306	344	341	353	366	337	355	384
185:	633	1678	899	369	347	293	313	320
193:	338	292	305	332	325	307	307	306
201:	315	289	278	270	309	295	252	292
209:	292	291	290	270	286	238	246	270
217:	238	254	260	243	220	199	263	232
225:	203	231	227	193	228	238	243	208
233:	206	243	251	365	278	475	677	307
241:	671	1788	718	227	216	211	204	179
249:	175	176	196	162	174	185	185	249
257:	232	214	278	225	157	162	186	184
265:	149	156	160	169	265	296	314	244
273:	206	218	215	206	178	178	161	192
281:	182	175	171	169	153	209	172	152
289:	165	170	168	161	181	578	3167	2035
297:	253	199	187	246	184	145	160	122
305:	130	137	129	136	130	133	118	150
313:	121	159	152	143	145	138	110	140
321:	158	117	135	159	121	119	139	154
329:	153	161	134	150	161	134	165	158
337:	129	219	217	143	139	136	131	119
345:	140	138	146	116	156	247	1886	5416
353:	1899	241	198	204	135	83	101	105
361:	113	117	99	98	91	87	94	99
369:	119	106	105	108	91	83	95	111
377:	120	90	81	105	107	112	103	102
385:	92	131	100	137	141	122	99	103
393:	112	114	105	90	102	112	111	109
401:	111	157	115	120	138	134	104	99
409:	126	104	107	104	101	88	109	96
417:	129	99	110	101	109	111	96	105
425:	107	110	109	98	104	77	82	101

433:	99	82	89	83	81	75	87	92
441:	77	73	67	75	85	75	85	74
449:	79	66	88	69	100	84	100	90
457:	70	66	90	87	93	101	119	84
465:	76	67	70	72	70	84	78	67
473:	64	87	63	60	66	67	71	98
481:	104	74	70	64	68	67	91	97
489:	75	60	62	69	67	53	61	57
497:	45	51	69	58	66	66	70	63
505:	64	66	65	64	71	113	155	94
513:	83	65	67	60	50	51	71	62
521:	53	69	56	48	47	53	55	68
529:	54	54	50	58	65	66	48	60
537:	58	61	69	47	54	55	69	66
545:	58	67	53	47	52	60	58	48
553:	62	50	57	46	60	53	50	58
561:	57	60	51	57	40	44	62	49
569:	50	53	64	55	64	60	42	55
577:	47	49	45	71	56	72	155	136
585:	73	37	57	46	47	41	53	49
593:	52	44	42	50	44	55	45	47
601:	38	60	63	47	54	67	99	523
609:	3037	2727	437	99	95	100	51	49
617:	46	32	38	32	45	43	27	42
625:	42	43	42	41	36	37	39	33
633:	40	52	32	44	32	41	30	44
641:	38	30	41	53	27	34	39	34
649:	38	38	35	32	32	35	35	42
657:	40	35	43	36	41	71	39	45
665:	120	126	51	38	31	57	51	39
673:	39	45	31	36	37	35	51	42
681:	34	32	39	36	43	45	38	44
689:	47	36	45	33	32	44	28	36
697:	57	44	47	34	38	47	58	53
705:	41	45	51	37	29	31	30	27
713:	29	37	44	36	28	33	43	57
721:	42	31	36	30	34	33	43	51
729:	37	32	34	33	40	46	39	38
737:	24	29	37	40	34	48	35	49
745:	43	35	41	36	28	36	29	48
753:	44	39	37	45	41	36	37	41
761:	41	29	32	47	41	56	115	295
769:	262	82	44	36	41	41	25	36
777:	33	29	30	24	44	23	36	40
785:	57	92	68	35	32	41	28	32
793:	32	42	35	35	29	36	27	22
801:	39	30	37	32	49	104	95	49
809:	40	28	37	35	35	43	34	28
817:	41	35	25	30	39	51	40	29
825:	41	39	43	39	29	37	44	45
833:	45	30	38	35	36	43	77	68
841:	33	31	38	42	32	28	41	28
849:	39	27	32	38	30	36	29	22
857:	30	28	34	35	41	43	39	42
865:	42	40	39	29	35	36	27	23
873:	38	27	25	37	37	46	39	35
881:	32	30	20	28	42	43	35	44
889:	43	38	37	26	37	37	31	31
897:	40	30	34	38	35	36	28	40
905:	41	42	31	33	35	62	96	101

913:	37	35	52	41	40	37	31	34
921:	34	33	31	24	33	31	36	38
929:	28	27	21	53	68	173	115	35
937:	34	36	29	23	33	25	32	35
945:	28	35	35	32	32	38	33	29
953:	26	27	39	29	29	29	29	40
961:	32	33	24	53	54	31	36	41
969:	68	58	20	29	22	30	32	23
977:	26	20	33	23	25	24	28	31
985:	32	33	27	22	36	23	25	31
993:	30	35	27	28	30	33	21	41
1001:	50	50	24	27	36	36	26	27
1009:	21	31	26	26	25	33	30	28
1017:	24	28	27	36	27	32	26	27
1025:	38	17	25	23	23	25	19	24
1033:	31	20	28	29	20	20	28	28
1041:	32	34	24	18	19	18	25	24
1049:	32	25	32	34	26	34	26	18
1057:	25	23	33	26	21	26	30	27
1065:	26	24	27	16	25	28	42	25
1073:	31	28	25	18	22	24	39	23
1081:	19	22	24	35	23	19	16	29
1089:	26	26	29	19	24	18	24	34
1097:	25	24	24	19	33	30	33	22
1105:	33	21	21	27	31	19	30	24
1113:	24	23	26	18	25	51	152	558
1121:	576	147	36	37	33	27	26	16
1129:	23	32	20	21	36	38	21	26
1137:	31	8	24	21	27	24	21	23
1145:	26	17	21	18	24	17	15	27
1153:	26	44	80	78	33	23	25	27
1161:	28	20	23	32	34	15	23	25
1169:	26	19	18	27	24	29	24	23
1177:	31	23	14	27	26	32	29	25
1185:	27	27	18	28	20	25	22	20
1193:	26	19	18	19	28	23	21	17
1201:	19	25	24	23	22	27	43	40
1209:	38	15	22	29	13	19	22	15
1217:	12	29	28	22	22	40	15	26
1225:	21	18	32	24	18	31	22	23
1233:	19	26	21	32	79	220	206	66
1241:	25	22	26	17	15	8	17	21
1249:	13	20	19	18	31	26	24	25
1257:	22	13	24	18	20	17	16	24
1265:	27	18	27	16	17	22	27	16
1273:	20	21	14	18	11	21	20	35
1281:	68	58	32	28	22	15	19	19
1289:	12	16	25	19	19	19	19	22
1297:	17	11	24	17	19	15	24	16
1305:	17	19	13	16	22	12	16	17
1313:	12	19	22	13	16	21	22	14
1321:	12	15	21	12	9	12	18	15
1329:	19	15	16	11	8	17	14	14
1337:	21	16	15	19	14	10	18	16
1345:	19	10	11	10	14	15	13	17
1353:	12	19	13	11	17	9	14	12
1361:	15	10	18	23	13	12	16	15
1369:	21	17	20	12	19	10	13	28
1377:	99	165	108	29	16	20	13	21
1385:	48	37	29	18	19	8	11	8

1393:	14	23	13	9	18	18	6	19
1401:	55	65	32	13	14	22	59	101
1409:	72	32	12	20	25	15	19	13
1417:	18	20	11	8	21	13	12	13
1425:	21	19	10	19	14	14	19	16
1433:	14	16	13	21	22	18	13	12
1441:	17	13	11	16	20	16	12	15
1449:	20	17	13	19	17	14	13	15
1457:	15	22	41	172	319	219	51	13
1465:	15	16	19	13	18	18	14	13
1473:	18	9	11	8	17	21	14	23
1481:	12	14	9	13	12	19	15	17
1489:	15	22	17	16	19	17	16	16
1497:	18	15	17	11	13	13	25	19
1505:	18	13	21	33	74	74	33	20
1513:	15	15	17	20	15	11	6	19
1521:	22	20	19	23	16	12	20	14
1529:	11	20	10	9	15	14	13	16
1537:	10	25	21	18	12	23	20	33
1545:	16	13	13	19	13	13	8	14
1553:	15	14	11	13	13	15	11	12
1561:	8	11	16	10	9	9	13	8
1569:	12	8	6	13	12	16	4	5
1577:	12	10	4	9	10	17	26	34
1585:	22	11	13	10	21	8	7	14
1593:	15	13	17	11	21	18	26	19
1601:	7	16	14	10	8	11	12	7
1609:	7	6	7	10	11	4	15	12
1617:	7	6	10	10	11	15	13	11
1625:	13	11	8	12	12	11	14	10
1633:	8	6	16	4	10	8	10	6
1641:	10	5	14	5	4	8	5	4
1649:	9	4	10	6	12	4	6	8
1657:	9	8	9	20	36	37	12	5
1665:	7	10	8	5	5	4	8	5
1673:	7	4	4	4	4	6	10	4
1681:	11	5	5	6	12	6	6	5
1689:	8	5	8	7	12	12	13	8
1697:	6	6	4	7	6	9	3	3
1705:	5	2	8	5	3	0	6	3
1713:	8	6	4	3	5	4	2	4
1721:	2	7	5	6	3	9	11	25
1729:	76	108	56	12	4	8	5	6
1737:	6	2	9	7	6	5	3	7
1745:	3	4	3	4	6	3	4	8
1753:	5	9	3	1	8	4	6	5
1761:	6	14	87	355	432	228	59	16
1769:	11	11	5	4	4	5	6	5
1777:	0	2	4	4	10	5	4	5
1785:	5	3	4	3	5	4	1	5
1793:	3	2	5	4	1	4	6	1
1801:	4	5	4	2	5	3	6	6
1809:	0	4	3	7	2	2	5	5
1817:	3	7	3	2	7	7	5	2
1825:	0	7	1	4	5	6	2	2
1833:	5	6	5	2	4	12	8	7
1841:	7	5	4	2	10	16	54	84
1849:	30	15	3	6	4	4	12	2
1857:	4	4	2	6	5	0	5	3
1865:	2	1	3	4	8	3	3	7

1873:	15	16	5	3	3	3	6	5
1881:	5	4	6	6	9	4	7	5
1889:	6	9	7	4	3	4	6	6
1897:	6	5	6	5	5	2	4	1
1905:	4	2	3	3	3	3	5	5
1913:	5	1	3	3	5	4	3	5
1921:	5	3	5	4	7	7	2	4
1929:	7	5	1	3	6	5	8	10
1937:	10	10	7	2	6	3	8	4
1945:	4	5	5	1	4	3	6	2
1953:	6	5	6	5	4	3	3	5
1961:	4	4	6	6	3	1	6	6
1969:	4	4	5	5	4	3	6	3
1977:	3	2	3	1	4	7	2	2
1985:	6	3	4	4	4	0	4	4
1993:	2	7	2	4	2	4	4	3
2001:	1	2	4	0	1	4	2	0
2009:	4	3	2	3	5	2	0	3
2017:	4	3	6	1	2	6	2	4
2025:	2	5	0	5	3	6	6	3
2033:	2	0	5	1	3	6	1	3
2041:	1	2	2	1	1	4	1	2
2049:	3	1	2	0	5	6	3	0
2057:	0	2	4	3	5	1	4	2
2065:	3	3	2	0	1	0	2	4
2073:	3	5	3	2	5	3	1	2
2081:	2	4	4	2	1	1	3	4
2089:	3	6	1	3	1	5	1	2
2097:	0	0	1	0	6	4	3	7
2105:	4	3	5	4	1	3	2	1
2113:	1	0	5	4	12	34	31	24
2121:	6	3	4	2	0	0	2	2
2129:	1	3	1	1	1	2	0	2
2137:	0	2	2	2	1	2	2	3
2145:	2	4	2	2	3	0	1	3
2153:	4	0	0	0	0	4	2	1
2161:	2	0	2	0	3	2	2	0
2169:	0	0	1	1	1	1	2	1
2177:	1	1	2	0	1	3	4	1
2185:	1	4	1	3	2	3	1	4
2193:	1	5	2	4	2	2	7	2
2201:	2	14	51	94	107	34	4	2
2209:	3	2	3	0	4	0	0	0
2217:	1	1	4	2	1	0	1	0
2225:	0	2	3	3	0	2	0	2
2233:	4	0	1	2	2	0	2	4
2241:	1	0	1	1	1	2	2	1
2249:	2	2	2	2	2	3	1	1
2257:	1	1	5	4	0	2	1	0
2265:	0	1	0	2	1	1	4	2
2273:	1	1	1	1	1	1	3	0
2281:	0	0	1	2	3	1	2	1
2289:	2	0	0	2	4	6	5	0
2297:	1	1	0	1	5	1	2	1
2305:	3	0	3	3	3	2	1	0
2313:	1	1	3	1	0	0	2	3
2321:	2	2	0	2	2	1	0	1
2329:	2	3	1	2	1	1	0	3
2337:	2	1	1	2	3	1	2	3
2345:	3	1	0	3	0	1	2	3

2353:	1	1	2	2	2	1	1	0
2361:	0	4	3	2	3	0	1	0
2369:	1	1	1	1	0	2	2	0
2377:	1	2	1	1	2	0	2	1
2385:	0	2	1	1	1	1	1	1
2393:	2	0	1	2	1	0	1	1
2401:	1	0	1	2	1	0	0	1
2409:	0	1	1	0	1	0	1	2
2417:	0	1	0	0	0	0	1	0
2425:	1	1	0	1	1	0	0	0
2433:	1	2	2	1	3	0	0	1
2441:	2	1	1	3	4	5	34	34
2449:	16	4	1	1	1	0	0	1
2457:	0	1	1	0	1	0	0	2
2465:	0	0	0	2	1	2	0	0
2473:	1	1	0	0	0	1	1	0
2481:	0	1	2	1	1	1	0	0
2489:	0	1	1	0	0	1	1	0
2497:	0	0	2	0	0	1	0	0
2505:	0	2	1	1	5	0	1	0
2513:	0	1	1	0	0	0	1	0
2521:	0	0	0	0	0	0	0	1
2529:	0	1	0	0	0	0	1	1
2537:	1	0	0	0	0	0	1	0
2545:	1	0	1	1	0	0	0	0
2553:	0	0	0	0	1	1	0	1
2561:	0	1	0	0	0	1	0	1
2569:	0	1	0	1	1	0	0	1
2577:	0	1	0	0	0	0	1	0
2585:	0	1	0	1	3	4	0	0
2593:	0	1	0	0	2	0	0	0
2601:	1	0	0	0	1	1	0	1
2609:	0	0	5	2	12	35	31	24
2617:	3	2	1	2	0	0	0	0
2625:	0	0	0	1	0	1	1	0
2633:	1	1	0	1	0	1	0	0
2641:	1	0	0	0	0	1	1	0
2649:	0	0	0	1	0	0	0	1
2657:	0	0	0	1	0	0	0	1
2665:	0	0	0	0	0	0	1	0
2673:	0	0	0	0	0	1	1	0
2681:	0	0	1	0	0	0	1	0
2689:	1	0	1	0	1	1	1	0
2697:	0	0	1	0	0	1	0	0
2705:	0	0	0	0	1	0	0	1
2713:	1	0	1	0	0	0	1	0
2721:	1	0	1	1	0	0	1	0
2729:	2	1	0	0	0	0	1	0
2737:	0	0	1	0	0	1	0	2
2745:	0	0	0	0	0	0	0	0
2753:	0	0	1	0	1	0	1	0
2761:	0	1	0	0	0	0	0	1
2769:	1	0	0	1	0	0	0	1
2777:	0	1	0	0	0	0	0	0
2785:	0	0	0	0	1	0	0	0
2793:	0	0	0	1	2	0	0	0
2801:	0	1	0	0	1	0	0	0
2809:	0	0	1	1	0	0	0	0
2817:	0	1	1	0	0	1	0	0
2825:	0	0	0	0	1	1	0	0

2833:	0	0	0	1	2	0	0	0
2841:	0	0	0	0	0	0	0	0
2849:	0	0	0	0	0	1	1	0
2857:	0	0	0	0	0	0	0	0
2865:	0	1	0	1	0	1	1	0
2873:	1	0	0	1	0	0	0	0
2881:	0	0	0	0	0	0	1	0
2889:	0	0	1	1	0	0	0	0
2897:	0	0	0	0	1	1	0	0
2905:	1	0	0	0	1	1	2	0
2913:	0	0	0	2	0	0	0	0
2921:	1	0	1	0	1	0	0	1
2929:	1	0	0	0	0	0	1	0
2937:	0	1	0	0	0	0	0	0
2945:	0	0	1	0	0	1	0	0
2953:	1	0	0	0	0	2	0	0
2961:	0	0	0	1	0	0	1	0
2969:	2	1	2	0	0	0	0	0
2977:	2	0	0	0	0	0	0	0
2985:	1	0	0	0	0	0	0	0
2993:	0	0	1	0	0	0	0	1
3001:	0	0	0	0	0	0	0	0
3009:	1	0	1	1	0	0	0	0
3017:	0	0	1	0	0	0	0	0
3025:	0	0	0	0	0	1	0	0
3033:	0	0	0	0	0	0	0	0
3041:	0	2	0	1	0	0	0	1
3049:	1	0	0	0	0	1	2	2
3057:	0	0	1	0	1	0	0	0
3065:	0	1	0	2	0	1	0	0
3073:	0	0	0	0	0	0	0	0
3081:	0	1	0	0	0	0	0	0
3089:	0	0	1	0	0	0	0	0
3097:	0	0	0	0	1	1	0	0
3105:	0	0	0	0	0	0	0	1
3113:	0	0	0	0	0	0	0	0
3121:	0	0	0	0	0	0	0	1
3129:	1	0	0	0	0	1	0	0
3137:	0	0	0	0	0	0	0	1
3145:	0	0	0	0	1	1	1	0
3153:	0	0	0	2	0	0	0	1
3161:	0	0	0	1	0	0	0	0
3169:	0	0	0	0	0	0	1	0
3177:	0	0	0	0	0	0	0	0
3185:	0	0	0	0	1	0	0	0
3193:	0	0	0	1	1	2	0	0
3201:	1	0	0	0	1	0	0	0
3209:	0	0	0	0	0	1	0	1
3217:	0	1	0	1	0	0	0	0
3225:	0	0	0	0	1	0	0	0
3233:	0	0	1	2	0	0	0	0
3241:	0	0	0	1	0	1	0	0
3249:	1	0	0	1	0	0	0	0
3257:	0	0	0	0	1	1	0	0
3265:	1	0	0	0	0	1	0	0
3273:	0	0	0	0	0	0	0	0
3281:	0	0	1	0	0	0	0	1
3289:	0	0	0	0	0	1	0	0
3297:	0	0	0	0	0	1	0	0
3305:	0	0	1	1	0	1	0	0

3313:	0	1	0	0	0	0	0	0	0
3321:	0	0	0	0	0	0	0	0	1
3329:	0	0	0	0	0	0	0	0	0
3337:	0	0	0	0	0	1	0	0	0
3345:	0	0	0	0	0	0	0	0	0
3353:	0	0	0	2	0	0	0	0	1
3361:	0	0	0	0	0	0	1	0	0
3369:	0	0	0	0	0	0	0	0	0
3377:	0	0	0	0	0	1	0	0	0
3385:	0	0	0	1	0	0	0	0	1
3393:	0	1	0	0	0	0	0	0	0
3401:	0	1	0	0	0	0	0	0	1
3409:	0	0	0	0	0	1	1	0	0
3417:	0	0	0	0	0	0	1	0	2
3425:	0	0	0	0	0	0	0	0	0
3433:	1	0	0	0	1	0	0	0	0
3441:	0	0	0	0	0	0	0	0	1
3449:	0	0	0	0	0	0	0	0	0
3457:	0	0	0	0	1	0	0	0	0
3465:	0	0	0	0	0	1	0	0	0
3473:	0	1	1	0	0	0	0	0	0
3481:	0	1	0	0	0	0	1	0	0
3489:	1	1	1	0	0	1	0	0	0
3497:	0	0	0	0	0	0	0	0	0
3505:	0	1	0	0	0	0	0	0	0
3513:	0	1	0	1	0	0	0	0	0
3521:	1	0	0	0	0	0	0	0	0
3529:	0	0	0	0	0	0	0	0	0
3537:	0	0	0	0	0	0	0	0	0
3545:	0	0	0	1	0	0	0	0	0
3553:	0	0	0	0	0	0	0	0	0
3561:	1	0	0	0	0	0	1	0	0
3569:	0	0	0	0	0	0	0	0	1
3577:	0	0	0	0	0	0	0	0	1
3585:	0	0	0	0	0	1	0	0	0
3593:	0	1	0	0	0	0	0	0	0
3601:	0	0	0	0	1	0	0	0	0
3609:	0	0	0	0	0	0	0	0	0
3617:	0	0	0	0	0	1	0	0	0
3625:	0	0	1	0	0	1	0	0	0
3633:	0	0	0	0	1	0	0	0	0
3641:	0	0	0	0	0	0	0	0	0
3649:	0	0	0	0	0	0	0	0	1
3657:	0	0	0	0	1	0	0	0	0
3665:	0	0	0	0	0	1	0	0	1
3673:	0	0	0	0	0	0	1	0	0
3681:	1	0	1	0	0	0	0	0	0
3689:	0	0	0	0	0	0	0	0	0
3697:	0	0	0	0	0	0	0	0	0
3705:	0	0	0	0	0	0	0	0	0
3713:	0	0	0	0	0	0	0	0	0
3721:	0	0	0	0	0	0	0	0	0
3729:	0	0	0	1	1	0	0	0	0
3737:	1	0	0	0	0	0	0	0	0
3745:	0	0	0	0	0	0	0	0	1
3753:	0	0	0	0	0	0	0	0	0
3761:	0	1	0	0	0	0	0	0	0
3769:	0	0	0	0	0	0	0	0	0
3777:	0	0	0	0	0	0	0	0	0
3785:	0	0	0	0	0	0	0	0	0

3793:	0	0	0	0	0	1	0	0
3801:	0	0	0	1	0	0	0	0
3809:	0	0	0	1	0	0	1	0
3817:	0	0	0	0	0	0	0	0
3825:	0	0	1	0	1	0	0	0
3833:	1	0	0	1	0	0	0	0
3841:	0	0	0	0	0	0	0	1
3849:	0	0	0	0	0	0	0	2
3857:	1	0	0	0	0	0	0	0
3865:	1	0	0	0	0	0	0	0
3873:	0	0	0	0	0	0	0	0
3881:	0	0	0	1	1	0	1	0
3889:	0	0	0	0	0	0	0	1
3897:	0	0	0	1	0	0	0	0
3905:	1	0	0	0	0	0	0	0
3913:	1	0	0	0	1	0	0	0
3921:	0	0	0	0	0	0	0	0
3929:	0	1	0	0	1	0	0	0
3937:	0	0	0	0	0	0	0	0
3945:	0	1	0	0	0	0	0	0
3953:	0	0	2	0	0	0	0	0
3961:	0	0	0	0	0	0	0	0
3969:	0	0	0	0	0	0	0	2
3977:	0	0	0	1	0	0	0	0
3985:	0	0	0	0	0	0	0	0
3993:	0	1	0	0	0	0	0	0
4001:	0	0	0	0	0	0	0	0
4009:	0	0	1	1	0	1	1	0
4017:	0	0	0	0	0	0	0	0
4025:	0	0	0	0	1	0	1	0
4033:	0	1	0	0	0	0	0	0
4041:	0	0	0	0	0	0	0	0
4049:	1	0	0	0	0	0	0	0
4057:	1	0	0	0	0	0	0	0
4065:	1	0	0	0	0	0	0	0
4073:	0	0	0	0	0	0	0	0
4081:	0	0	1	0	0	0	1	0
4089:	1	0	0	0	0	0	0	0

AG
12/11/11

VAX/VMS Peak Search Report Generated 11-DEC-2011 15:30:49.83

Configuration : DKA100: [GAMMA.SCUSR.ARCHIVE] SMP_111106804_GE1_GAS1102_172287.
 Analyses by : PEAK V16.9 ENBACK V1.6 PEAKEFF V2.2
 Client ID : BKGD-E-31-111107
 Deposition Date :
 Sample Date : 7-NOV-2011 00:00:00. Acquisition date : 11-DEC-2011 14:29:49
 Sample ID : 1111068-04 Sample Quantity : 3.87480E+02 GRAM
 Sample type : SOIL Sample Geometry : 0
 Detector name : GE1 Detector Geometry: GAS-1102
 Elapsed live time: 0 01:00:00.00 Elapsed real time: 0 01:00:05.84 0.2%
 Start channel : 5 End channel : 4096
 Sensitivity : 2.40000 Gaussian : 15.00000
 Critical level : Yes

Post-NID Peak Search Report

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides
0	31.83	156	1447	2.56	31.46	30	5	74.8		
0	46.58*	1215	2514	1.84	46.21	43	6	14.3		PB-210
0	53.25	228	2976	1.11	52.87	51	6	76.9		
0	63.30*	720	4833	1.30	62.93	60	7	32.9		TH-234
0	76.82*	9272	8312	3.04	76.45	71	12	4.5		
0	93.15*	1208	3927	1.55	92.78	90	7	18.7		
0	144.41*	220	2748	1.30	144.05	141	7	80.2		U-235 CE-141
0	154.63	235	2298	1.26	154.28	152	6	65.7		
0	186.43*	2337	2576	1.50	186.09	182	8	8.6		RA-226
0	204.94	123	1591	3.08	204.60	202	6	104.6		U-235
0	222.87	135	1345	2.99	222.53	220	6	87.7		
0	241.92	2738	2462	1.41	241.59	237	9	7.6		RA-224
0	256.74	307	1770	4.11	256.41	252	10	52.7		
0	270.75	512	1857	3.10	270.43	266	11	33.7		LU-173
2	295.62*	5275	764	1.59	295.29	291	12	3.2	3.00E+00	PB-214
2	299.98	185	936	1.99	299.65	291	12	55.4		
0	329.77	109	767	1.52	329.45	327	6	83.0		
0	339.79	158	1065	1.82	339.47	335	8	73.4		AC-228
2	352.30*	8966	596	1.60	351.99	346	14	2.3	2.59E+00	PB-214
2	355.96	205	650	2.04	355.65	346	14	59.9		
0	387.84	85	765	1.26	387.54	384	7	110.0		
0	454.15*	88	511	2.18	453.86	451	7	88.2		
0	486.02	117	827	8.12	485.73	478	13	102.9		
0	511.80*	159	605	2.82	511.52	506	11	63.5		
1	580.08	106	284	2.01	579.82	577	13	53.1	3.95E+00	
1	583.45*	306	253	2.01	583.18	577	13	21.0		TL-208
3	609.66*	6685	224	1.76	609.40	603	17	2.5	2.30E+00	BI-214
3	613.64	180	283	2.46	613.39	603	17	70.3		
0	621.72	47	194	3.68	621.47	619	6	98.4		RU-106
1	666.06	208	201	2.06	665.81	657	14	26.5	3.31E+00	
0	703.92*	106	341	2.80	703.69	699	10	68.5		
0	720.55	45	216	2.86	720.31	717	7	111.3		
0	727.18*	68	216	1.64	726.95	724	7	76.1		BI-212
0	742.74	98	259	2.20	742.51	738	9	62.3		
0	768.44	652	371	2.09	768.22	762	11	13.9		

AG
12/12/11

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides
0	786.29	157	302	1.76	786.07	782	9	43.0		
0	806.48	173	236	2.20	806.27	802	8	34.4		
0	839.07	102	263	2.04	838.86	836	8	58.3		
0	860.47	45	191	1.52	860.27	857		7106.3		TL-208
0	866.25	40	170	3.71	866.04	864		6107.8		
0	911.35	165	280	2.20	911.16	907	8	38.4		AC-228
0	934.41	320	318	2.00	934.22	929	11	24.2		
3	964.85	92	214	2.69	964.67	959	15	59.8	7.17E-01	
3	969.37*	151	198	2.69	969.18	959	15	37.9		AC-228
0	1000.97*	90	338	2.76	1000.80	995	14	89.8		PA-234M
0	1070.59	46	140	3.02	1070.42	1067	7	89.7		
0	1120.61	1383	236	2.16	1120.46	1116	10	6.8		BI-214
0	1134.42	55	185	1.78	1134.28	1130	9	93.9		
0	1155.79	232	184	2.61	1155.65	1151	11	26.2		
0	1176.46	46	122	1.44	1176.32	1174	7	87.2		
0	1207.85	76	168	3.35	1207.72	1204	9	65.4		
0	1238.42	550	157	2.05	1238.30	1235	9	11.8		
3	1281.22	132	155	2.86	1281.10	1276	14	38.1	1.16E+00	
3	1285.95	26	97	2.36	1285.83	1276		14147.5		
1	1378.06	354	97	2.40	1377.96	1372	18	13.6	7.44E+00	
1	1385.07	81	90	2.40	1384.97	1372	18	47.4		
3	1401.80	126	112	2.91	1401.70	1398	17	31.5	2.93E+00	
3	1408.29	225	92	2.70	1408.19	1398	17	20.5		
0	1421.52	30	49	1.07	1421.43	1419	5	78.7		
0	1461.09*	698	174	2.37	1461.01	1455	12	10.7		K-40
0	1510.41	151	217	2.28	1510.34	1504	13	43.7		
0	1585.63	62	119	6.30	1585.57	1579	12	75.2		
0	1661.92	72	38	2.28	1661.88	1658	8	38.2		
0	1693.13	20	49	2.13	1693.10	1690		7124.4		
0	1729.98	281	48	2.40	1729.95	1724	13	15.7		
0	1764.77*	1170	66	2.38	1764.75	1758	14	6.6		BI-214
0	1788.58	20	21	2.91	1788.56	1785	7	86.4		
1	1839.07	27	31	2.57	1839.07	1835	27	76.3	1.23E+00	
1	1847.77	130	25	2.57	1847.77	1835	27	22.9		
0	1873.83	16	22	2.14	1873.84	1870		8110.7		
0	1911.49	20	24	2.19	1911.50	1906		10103.0		
0	2032.15	10	8	1.40	2032.19	2030		6108.2		
6	2053.04	13	20	4.26	2053.09	2046		22140.1	9.58E-01	
6	2062.35	15	9	4.26	2062.40	2046		22109.3		
0	2103.63	45	5	6.54	2103.68	2098	16	36.1		
0	2118.65	85	12	2.50	2118.70	2113	12	27.2		
0	2134.08	26	3	10.53	2134.14	2128	13	48.3		
1	2158.69	9	3	2.68	2158.76	2155		13115.4	1.35E+00	
1	2162.18	10	6	2.68	2162.24	2155		13107.8		
0	2181.67*	12	8	4.89	2181.74	2178		9108.7		
0	2204.05*	335	20	2.34	2204.12	2198	13	12.2		BI-214
0	2293.67	22	7	2.99	2293.77	2289	9	59.4		
0	2331.43	7	5	2.72	2331.53	2327		7129.2		
0	2393.52	9	2	4.61	2393.63	2389	9	91.4		
0	2425.00	8	0	2.22	2425.13	2421	8	70.7		
0	2447.41	69	3	2.28	2447.53	2444	9	25.3		

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides
0	2614.67*	89	0	2.29	2614.83	2610	12	21.9		TL-208

Summary of Nuclide Activity

Sample ID : 1111068-04

Acquisition date : 11-DEC-2011 14:29:49

Total number of lines in spectrum 87
 Number of unidentified lines 48
 Number of lines tentatively identified by NID 39 44.83%

Nuclide Type : NATURAL

Nuclide	Hlife	Decay	Wtd Mean		Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
			Uncorrected pCi/GRAM	Decay Corr pCi/GRAM			
K-40	1.28E+09Y	1.00	2.523E+01	2.523E+01	0.359E+01	14.25	
TL-208	1.41E+10Y	1.00	1.557E+00	1.557E+00	0.263E+00	16.87	
PB-210	22.26Y	1.00	2.224E+01	2.231E+01	0.374E+01	16.75	
BI-212	1.41E+10Y	1.00	1.301E+00	1.301E+00	0.999E+00	76.79	
BI-214	1602.00Y	1.00	3.005E+01	3.005E+01	0.177E+01	5.88	
PB-214	1602.00Y	1.00	3.061E+01	3.061E+01	0.207E+01	6.75	
RA-224	1.41E+10Y	1.00	6.758E+01	6.758E+01	0.802E+01	11.87	
RA-226	1602.00Y	1.00	5.980E+01	5.980E+01	10.96E+01	183.35	
AC-228	1.41E+10Y	1.00	1.860E+00	1.860E+00	0.494E+00	26.55	
PA-234M	4.47E+09Y	1.00	2.837E+01	2.837E+01	2.560E+01	90.26	
TH-234	4.47E+09Y	1.00	1.273E+01	1.273E+01	0.433E+01	33.99	
U-235	7.04E+08Y	1.00	2.319E+00	2.319E+00	2.467E+00	106.41	
Total Activity :			2.836E+02	2.837E+02			

Nuclide Type : FISSION

Nuclide	Hlife	Decay	Wtd Mean		Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
			Uncorrected pCi/GRAM	Decay Corr pCi/GRAM			
RU-106	368.20D	1.07	9.525E-01	1.017E+00	1.011E+00	99.46	
CE-141	32.50D	2.09	3.409E-01	7.134E-01	6.022E-01	84.42	
Total Activity :			1.293E+00	1.730E+00			

Nuclide Type : ACTIVATION

Nuclide	Hlife	Decay	Wtd Mean		Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
			Uncorrected pCi/GRAM	Decay Corr pCi/GRAM			
LU-173	1.37Y	1.05	2.550E+00	2.675E+00	0.932E+00	34.85	
Total Activity :			2.550E+00	2.675E+00			

Grand Total Activity : 2.875E+02 2.881E+02

Flags: "K" = Keyline not found
 "E" = Manually edited

"M" = Manually accepted
 "A" = Nuclide specific abn. limit

Nuclide Type: NATURAL

Nuclide	Energy	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error	Status
K-40	1460.81	10.67*	5.027E-01	2.523E+01	2.523E+01	14.25	OK
Final Mean for 1 Valid Peaks = 2.523E+01+/- 3.595E+00 (14.25%)							
TL-208	583.14	30.22*	1.029E+00	1.904E+00	1.904E+00	23.32	OK
	860.37	4.48	7.505E-01	2.594E+00	2.594E+00	106.74	OK
	2614.66	35.85	3.563E-01	1.353E+00	1.353E+00	24.24	OK
Final Mean for 3 Valid Peaks = 1.557E+00+/- 2.626E-01 (16.87%)							
PB-210	46.50	4.05*	2.613E+00	2.224E+01	2.231E+01	16.75	OK
Final Mean for 1 Valid Peaks = 2.231E+01+/- 3.736E+00 (16.75%)							
BI-212	727.17	11.80*	8.597E-01	1.301E+00	1.301E+00	76.79	OK
	1620.62	2.75	4.684E-01	-----	Line Not Found	-----	Absent
Final Mean for 1 Valid Peaks = 1.301E+00+/- 9.988E-01 (76.79%)							
BI-214	609.31	46.30*	9.927E-01	2.818E+01	2.818E+01	10.44	OK
	1120.29	15.10	6.104E-01	2.908E+01	2.908E+01	11.36	OK
	1764.49	15.80	4.432E-01	3.237E+01	3.237E+01	11.13	OK
	2204.22	4.98	3.885E-01	3.352E+01	3.352E+01	15.62	OK
Final Mean for 4 Valid Peaks = 3.005E+01+/- 1.766E+00 (5.88%)							
PB-214	295.21	19.19	1.736E+00	3.068E+01	3.068E+01	9.63	OK
	351.92	37.19*	1.529E+00	3.054E+01	3.054E+01	9.47	OK
Final Mean for 2 Valid Peaks = 3.061E+01+/- 2.067E+00 (6.75%)							
RA-224	240.98	3.95*	1.987E+00	6.758E+01	6.758E+01	11.87	OK
Final Mean for 1 Valid Peaks = 6.758E+01+/- 8.020E+00 (11.87%)							
RA-226	186.21	3.28*	2.308E+00	5.980E+01	5.980E+01	183.35	OK
Final Mean for 1 Valid Peaks = 5.980E+01+/- 1.096E+02 (183.35%)							
AC-228	338.32	11.40	1.575E+00	1.705E+00	1.705E+00	74.02	OK
	911.07	27.70*	7.170E-01	1.612E+00	1.612E+00	39.38	OK
	969.11	16.60	6.829E-01	2.576E+00	2.576E+00	38.96	OK
Final Mean for 3 Valid Peaks = 1.860E+00+/- 4.938E-01 (26.55%)							
PA-234M	1001.03	0.92*	6.658E-01	2.837E+01	2.837E+01	90.26	OK
Final Mean for 1 Valid Peaks = 2.837E+01+/- 2.560E+01 (90.26%)							

Nuclide Type: NATURAL

Nuclide	Energy	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error	Status
TH-234	63.29	3.80*	2.884E+00	1.273E+01	1.273E+01	33.99	OK
Final Mean for 1 Valid Peaks = 1.273E+01+/- 4.327E+00 (33.99%)							
U-235	143.76	10.50*	2.601E+00	1.564E+00	1.564E+00	82.20	<<WM Interf
	163.35	4.70	2.462E+00	-----	Line Not Found	-----	Absent
	205.31	4.70	2.188E+00	2.319E+00	2.319E+00	106.41	OK
Final Mean for 1 Valid Peaks = 2.319E+00+/- 2.467E+00 (106.41%)							

Nuclide Type: FISSION

Nuclide	Energy	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error	Status
RU-106	621.84	9.80*	9.764E-01	9.525E-01	1.017E+00	99.46	OK
Final Mean for 1 Valid Peaks = 1.017E+00+/- 1.011E+00 (99.46%)							
CE-141	145.44	48.40*	2.589E+00	3.409E-01	7.134E-01	84.42	OK
Final Mean for 1 Valid Peaks = 7.134E-01+/- 6.022E-01 (84.42%)							

Nuclide Type: ACTIVATION

Nuclide	Energy	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error	Status
LU-173	100.72	5.24	2.881E+00	-----	Line Not Found	-----	Absent
	272.11	21.20*	1.836E+00	2.550E+00	2.675E+00	34.85	OK
Final Mean for 1 Valid Peaks = 2.675E+00+/- 9.323E-01 (34.85%)							

Flag: "*" = Keyline

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.523E+01	3.595E+00	1.819E+00	1.543E-01	13.867
RU-106	1.017E+00	1.011E+00	1.500E+00	2.073E-01	0.678
CE-141	7.134E-01	6.022E-01	6.429E-01	1.678E-01	1.110
LU-173	2.675E+00	9.323E-01	7.180E-01	5.834E-02	3.725
TL-208	1.557E+00	2.626E-01	4.650E-01	4.300E-02	3.349
PB-210	2.231E+01	3.736E+00	3.587E+00	2.768E-01	6.219
BI-212	1.301E+00	9.988E-01	1.282E+00	1.171E-01	1.015
BI-214	3.005E+01	1.766E+00	3.449E-01	3.208E-02	87.130
PB-214	3.061E+01	2.067E+00	3.927E-01	3.248E-02	77.945
RA-224	6.758E+01	8.020E+00	4.266E+00	3.493E-01	15.843
RA-226	5.980E+01	1.096E+02	4.651E+00	8.516E+00	12.859
AC-228	1.860E+00	4.938E-01	7.044E-01	5.598E-02	2.640
PA-234M	2.837E+01	2.560E+01	1.927E+01	1.562E+00	1.472
TH-234	1.273E+01	4.327E+00	4.470E+00	3.312E-01	2.847
U-235	2.319E+00	2.467E+00	1.409E+00	2.484E-01	1.646

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-6.084E-01		1.394E+00	2.145E+00	1.891E-01	-0.284
NA-22	8.186E-02		1.328E-01	2.106E-01	1.723E-02	0.389
AL-26	-2.943E-02		7.661E-02	1.266E-01	1.011E-02	-0.232
TI-44	-5.647E-02		1.403E-01	1.854E-01	1.452E-02	-0.305
SC-46	-6.773E-02		1.498E-01	2.508E-01	2.007E-02	-0.270
V-48	-1.596E-01		4.663E-01	7.839E-01	6.335E-02	-0.204
CR-51	-2.026E+00		2.255E+00	3.461E+00	3.017E-01	-0.586
MN-54	8.140E-02		1.244E-01	1.986E-01	1.685E-02	0.410
CO-56	2.697E-02		1.557E-01	2.424E-01	2.033E-02	0.111
CO-57	-3.027E-02		1.064E-01	1.718E-01	1.658E-02	-0.176
CO-58	-3.434E-02		1.482E-01	2.254E-01	1.958E-02	-0.152
FE-59	-1.480E-01		3.625E-01	6.024E-01	5.372E-02	-0.246
CO-60	3.894E-02		1.374E-01	2.121E-01	1.734E-02	0.184
ZN-65	1.881E-01		2.740E-01	4.368E-01	3.580E-02	0.431
SE-75	2.390E-01		2.174E-01	2.913E-01	2.392E-02	0.821
RB-82	5.326E-01		2.216E+00	3.194E+00	2.839E-01	0.167
RB-83	1.126E-01		2.574E-01	4.118E-01	6.534E-02	0.273
KR-85	4.802E+01		2.156E+01	3.921E+01	3.531E+00	1.225
SR-85	3.021E-01		1.356E-01	2.467E-01	2.222E-02	1.225
Y-88	8.528E-02		1.029E-01	1.878E-01	1.492E-02	0.454
NB-93M	-1.300E+01		3.129E+00	6.172E-02	1.373E-02	-210.675
NB-94	-3.203E-03		1.161E-01	1.780E-01	1.456E-02	-0.018
NB-95	1.714E+00		3.058E-01	5.269E-01	4.720E-02	3.253
ZR-95	-4.991E-02		2.530E-01	4.129E-01	4.063E-02	-0.121
RU-103	-2.242E-02		1.758E-01	3.052E-01	4.379E-02	-0.073
AG-108M	1.107E-01		1.313E-01	1.751E-01	1.604E-02	0.632
CD-109	1.477E+01		3.982E+00	5.658E+00	6.570E-01	2.610
AG-110M	1.157E-02		1.132E-01	1.774E-01	1.657E-02	0.065

----- Non-Identified Nuclides -----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SN-113	6.859E-02		1.865E-01	2.975E-01	2.525E-02	0.231
TE123M	1.482E-02		1.484E-01	2.209E-01	1.829E-02	0.067
SB-124	-1.504E-04		1.563E-01	2.435E-01	2.262E-02	-0.001
I-125	-1.399E+00		2.223E+00	3.374E+00	3.061E-01	-0.415
SB-125	1.812E-01		3.151E-01	5.576E-01	4.830E-02	0.325
SB-126	1.310E+00	+	1.464E+00	2.082E+00	1.908E-01	0.629
SN-126	4.247E-01		3.511E-01	5.330E-01	5.298E-02	0.797
I-129	2.122E-02		1.861E-01	2.892E-01	3.037E-02	0.073
I-131	-1.158E+00		2.034E+00	3.349E+00	2.768E-01	-0.346
BA-133	4.388E-01	+	2.695E-01	3.844E-01	4.988E-02	1.141
CS-134	4.247E-02		1.121E-01	1.775E-01	1.654E-02	0.239
CS-135	1.249E+00		6.554E-01	1.002E+00	8.153E-02	1.247
CS-136	-5.282E-01		8.397E-01	1.382E+00	1.166E-01	-0.382
CS-137	2.707E-01		1.150E-01	2.105E-01	1.969E-02	1.286
LA-138	1.555E-02		1.694E-01	2.893E-01	2.377E-02	0.054
CE-139	4.125E-02		1.371E-01	2.220E-01	1.775E-02	0.186
BA-140	-2.523E-01		2.240E+00	3.882E+00	1.292E+00	-0.065
LA-140	8.227E-01		8.418E-01	1.454E+00	1.193E-01	0.566
CE-144	-1.357E-01		8.746E-01	1.412E+00	1.305E-01	-0.096
PM-144	1.259E-02		1.056E-01	1.653E-01	1.532E-02	0.076
PM-145	-4.646E-01		5.393E-01	6.712E-01	4.371E-01	-0.692
PM-146	3.436E-01	+	3.048E-01	4.109E-01	3.563E-02	0.836
ND-147	1.466E-01		5.705E+00	9.950E+00	9.035E-01	0.015
EU-152	5.693E+00	+	1.334E+00	2.075E+00	2.197E-01	2.743
GD-153	-1.166E-01		3.956E-01	6.413E-01	6.275E-02	-0.182
EU-154	2.210E-01		3.669E-01	5.814E-01	4.758E-02	0.380
EU-155	2.402E+00		5.117E-01	6.502E-01	6.381E-02	3.695
EU-156	-4.277E+00		5.067E+00	7.232E+00	1.653E+00	-0.591
HO-166M	6.921E-02		2.063E-01	2.996E-01	2.757E-02	0.231
HF-172	3.192E-02		7.816E-01	1.269E+00	1.207E-01	0.025
LU-172	-1.978E+00		6.419E+00	1.075E+01	8.795E-01	-0.184
HF-175	5.078E-03		2.013E-01	2.555E-01	2.113E-02	0.020
LU-176	-3.879E-02		1.067E-01	1.534E-01	1.259E-02	-0.253
TA-182	1.553E+01	+	1.764E+00	2.058E+00	1.684E-01	7.546
IR-192	-2.702E-01		2.527E-01	4.235E-01	3.710E-02	-0.638
HG-203	-1.285E-01		2.188E-01	3.129E-01	2.616E-02	-0.411
BI-207	4.062E-02		9.078E-02	1.602E-01	1.476E-02	0.254
BI-210M	1.631E-01		2.462E-01	3.241E-01	2.643E-02	0.503
PB-211	2.050E+00		3.264E+00	5.774E+00	4.800E-01	0.355
PB-212	1.290E+00		3.093E-01	4.617E-01	3.781E-02	2.794
RN-219	1.335E+00		1.435E+00	2.554E+00	2.117E-01	0.523
RA-223	1.833E+00		2.600E+00	3.879E+00	3.199E-01	0.473
RA-225	-7.397E-01		1.534E+00	2.334E+00	1.953E-01	-0.317
TH-227	1.007E+00		1.013E+00	1.517E+00	1.242E-01	0.664
TH-230	1.074E+01		3.524E+01	4.729E+01	3.695E+00	0.227
PA-231	5.509E+00		4.549E+00	6.869E+00	5.628E-01	0.802
TH-231	1.472E+00		8.746E-01	1.474E+00	1.802E-01	0.999
PA-233	-6.354E-02		5.542E-01	8.766E-01	1.955E-01	-0.072

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PA-234	5.322E-02		4.258E-01	6.915E-01	6.448E-02	0.077
NP-237	5.814E+00		1.238E+00	1.574E+00	1.544E-01	3.695
AM-241	5.523E-01		3.267E-01	4.511E-01	3.195E-02	1.224
AM-243	3.425E+00		3.808E-01	3.850E-01	3.276E-02	8.897
CM-243	3.810E-02		7.322E-01	1.072E+00	8.691E-02	0.036

Total number of lines in spectrum 87
 Number of unidentified lines 48
 Number of lines tentatively identified by NID 39 44.83%

Nuclide Type : NATURAL

Nuclide	Hlife	Decay	Wtd Mean		Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
			Uncorrected pCi/GRAM	Decay Corr pCi/GRAM			
K-40	1.28E+09Y	1.00	2.523E+01	2.523E+01	0.359E+01	14.25	
TL-208	1.41E+10Y	1.00	1.557E+00	1.557E+00	0.263E+00	16.87	
PB-210	22.26Y	1.00	2.224E+01	2.231E+01	0.374E+01	16.75	
BI-212	1.41E+10Y	1.00	1.301E+00	1.301E+00	0.999E+00	76.79	
BI-214	1602.00Y	1.00	3.005E+01	3.005E+01	0.177E+01	5.88	
PB-214	1602.00Y	1.00	3.061E+01	3.061E+01	0.207E+01	6.75	
RA-224	1.41E+10Y	1.00	6.758E+01	6.758E+01	0.802E+01	11.87	
RA-226	1602.00Y	1.00	5.980E+01	5.980E+01	10.96E+01	183.35	
AC-228	1.41E+10Y	1.00	1.860E+00	1.860E+00	0.494E+00	26.55	
PA-234M	4.47E+09Y	1.00	2.837E+01	2.837E+01	2.560E+01	90.26	
TH-234	4.47E+09Y	1.00	1.273E+01	1.273E+01	0.433E+01	33.99	
U-235	7.04E+08Y	1.00	2.319E+00	2.319E+00	2.467E+00	106.41	
Total Activity :			2.836E+02	2.837E+02			

Nuclide Type : FISSION

Nuclide	Hlife	Decay	Wtd Mean		Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
			Uncorrected pCi/GRAM	Decay Corr pCi/GRAM			
RU-106	368.20D	1.07	9.525E-01	1.017E+00	1.011E+00	99.46	
CE-141	32.50D	2.09	3.409E-01	7.134E-01	6.022E-01	84.42	
Total Activity :			1.293E+00	1.730E+00			

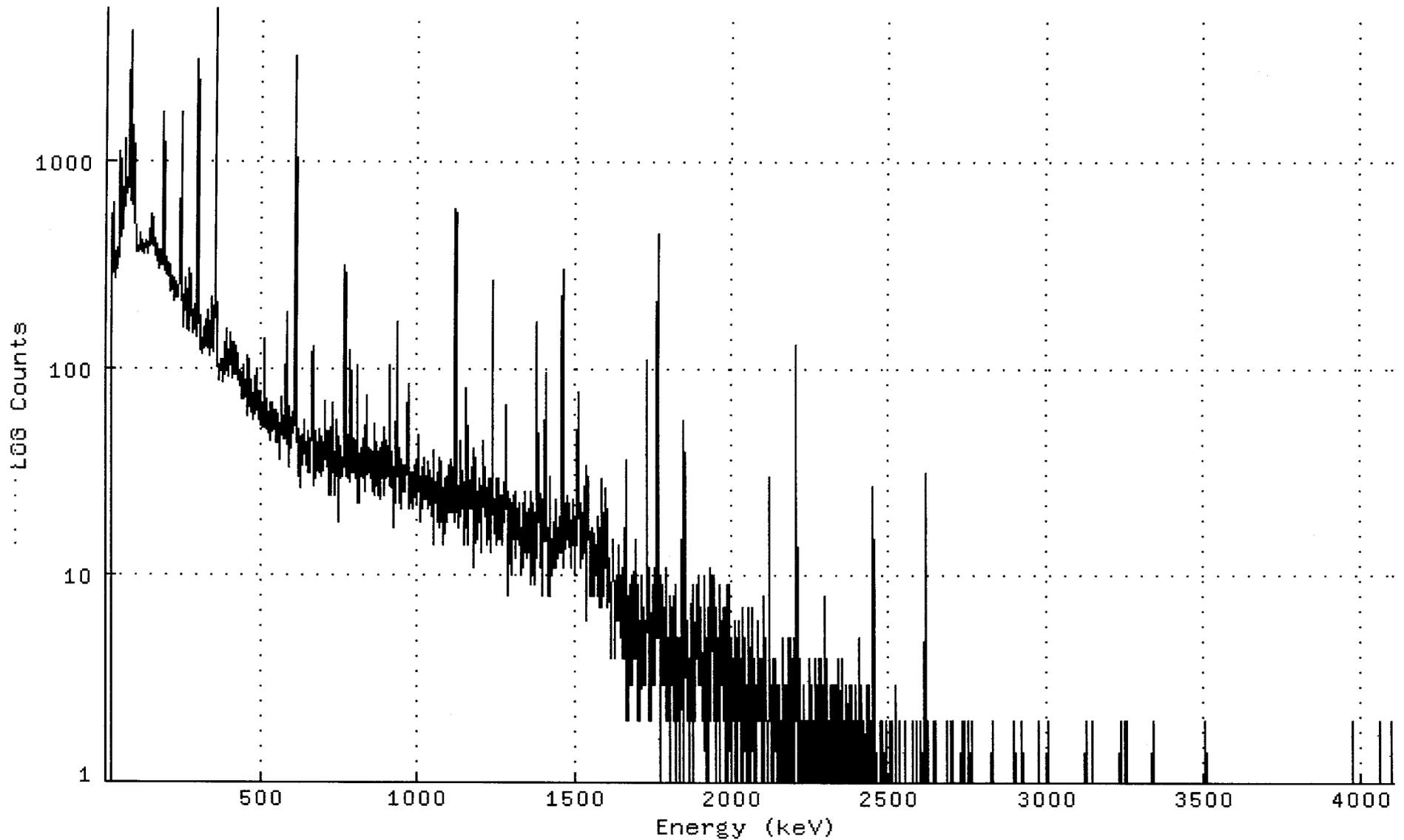
Nuclide Type : ACTIVATION

Nuclide	Hlife	Decay	Wtd Mean		Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
			Uncorrected pCi/GRAM	Decay Corr pCi/GRAM			
LU-173	1.37Y	1.05	2.550E+00	2.675E+00	0.932E+00	34.85	
Total Activity :			2.550E+00	2.675E+00			

Grand Total Activity : 2.875E+02 2.881E+02

Flags: "K" = Keyline not found "M" = Manually accepted
 "E" = Manually edited "A" = Nuclide specific abn. limit

Spectrum : DKA100:[GAMMA.SCUSR.ARCHIVE]SMP_111106804_GE1_GAS1102_172287.CNF;1
Title :
Sample Title: BKGD-E-31-111107
Start Time: 11-DEC-2011 14:29 Sample Time: 7-NOV-2011 00:00: Energy Offset: 3.84457E-01
Real Time : 0 01:00:05.84 Sample ID : 1111068-04 Energy Slope : 9.99792E-01
Live Time : 0 01:00:00.00 Sample Type: SOIL Energy Quad : 0.00000E+00



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Channel Contents for DKA100: [GAMMA.SCUSR.ARCHIVE] SMP_111106804_GE1_GAS1102_1722

Channel

1:	0	0	0	0	0	0	0	0
9:	0	0	0	0	0	0	0	0
17:	0	0	233	357	308	492	623	534
25:	303	320	323	293	268	295	347	357
33:	329	275	314	345	332	311	376	373
41:	336	345	414	412	485	1091	946	430
49:	477	519	459	521	733	515	508	468
57:	534	565	621	643	678	740	1276	895
65:	714	699	773	807	710	690	755	750
73:	786	1526	2711	1641	4151	1999	914	849
81:	875	635	701	1047	609	656	1456	1073
89:	690	909	637	896	1185	664	563	415
97:	417	446	424	363	395	377	364	365
105:	381	387	359	392	394	366	369	406
113:	441	358	401	410	365	368	380	356
121:	362	385	379	364	392	385	395	388
129:	405	379	402	371	368	396	352	357
137:	379	380	387	386	402	401	401	543
145:	446	399	389	394	406	446	385	385
153:	410	527	415	419	377	386	368	387
161:	343	351	386	389	321	340	337	369
169:	345	333	324	305	300	315	360	342
177:	330	315	366	312	348	342	355	382
185:	645	1710	887	361	291	313	303	329
193:	337	278	293	302	331	304	310	274
201:	303	290	315	275	311	269	254	234
209:	276	280	268	242	266	239	243	258
217:	246	244	210	212	269	241	260	248
225:	250	218	225	245	238	221	219	228
233:	238	225	267	402	270	460	648	297
241:	628	1715	728	246	208	233	214	156
249:	190	184	182	186	214	187	212	270
257:	207	226	235	188	152	191	187	194
265:	148	149	190	183	271	300	261	225
273:	179	215	207	189	183	164	165	147
281:	160	189	155	172	167	201	158	152
289:	169	157	141	176	189	613	3030	1954
297:	296	182	204	240	185	137	176	158
305:	168	157	121	117	126	129	138	121
313:	126	124	156	124	131	123	133	130
321:	135	127	128	168	150	132	125	147
329:	156	189	139	120	135	165	114	135
337:	132	215	220	129	146	132	124	118
345:	138	135	140	137	166	239	1911	5486
353:	1804	219	174	205	150	114	101	113
361:	107	95	101	90	103	93	96	87
369:	104	107	108	97	102	98	108	102
377:	107	105	100	85	100	92	106	112
385:	108	114	153	122	131	110	109	97
393:	122	101	110	104	103	90	128	102
401:	115	146	119	110	122	132	98	132
409:	109	89	94	131	100	121	109	111
417:	121	102	98	126	102	93	91	101
425:	111	107	115	87	88	92	97	84

433:	90	93	71	79	94	79	73	77
441:	80	71	77	71	103	85	81	72
449:	74	78	76	83	92	100	114	78
457:	58	82	66	80	64	88	109	77
465:	71	76	62	75	61	86	74	75
473:	75	56	66	58	72	61	59	82
481:	90	60	64	62	69	87	99	88
489:	63	60	62	76	69	62	56	74
497:	60	70	64	52	77	59	55	56
505:	60	56	51	51	85	102	136	120
513:	72	61	70	50	55	59	62	49
521:	48	61	59	49	50	58	57	44
529:	49	60	67	50	62	65	58	49
537:	68	58	50	56	50	59	59	62
545:	59	57	43	48	55	61	60	55
553:	59	58	43	50	46	51	36	45
561:	47	50	57	47	65	52	57	72
569:	48	50	57	55	58	45	49	50
577:	52	45	62	102	63	87	186	137
585:	61	43	41	65	33	36	38	43
593:	49	56	46	41	51	54	61	53
601:	58	48	51	57	54	52	101	623
609:	3176	2644	399	94	101	107	55	51
617:	35	40	30	50	44	45	46	26
625:	35	35	38	40	35	34	41	40
633:	42	47	38	41	56	40	45	44
641:	38	43	38	38	34	42	34	49
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1993:	2	1	5	1	5	1	3	3
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2009:	1	6	4	4	5	4	0	5
2017:	4	4	6	3	3	5	2	4
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2081:	2	2	2	2	2	3	3	2
2089:	4	2	2	2	3	1	0	4
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2169:	2	1	3	1	3	2	2	2
2177:	2	1	5	2	2	4	5	1
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2193:	1	1	1	5	2	1	4	3
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2225:	3	2	1	0	1	2	2	1
2233:	2	1	0	2	2	1	1	0
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2249:	1	3	2	2	0	1	2	2
2257:	1	2	1	2	1	0	3	0
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2273:	0	4	0	0	3	1	3	1
2281:	1	0	2	0	4	2	1	1
2289:	1	3	0	4	6	8	5	2
2297:	0	1	1	4	1	0	1	0
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2313:	2	1	1	0	1	0	3	2
2321:	0	0	3	0	1	2	1	1
2329:	1	3	3	3	0	0	1	1
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2345:	0	1	1	4	1	0	0	0

2353:	0	2	0	0	0	1	0	3
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2369:	1	2	3	0	2	0	2	0
2377:	1	0	3	2	1	0	1	2
2385:	0	1	1	0	0	0	1	2
2393:	3	2	1	2	0	1	0	1
2401:	0	5	1	0	2	2	0	0
2409:	1	1	0	3	0	1	0	1
2417:	2	0	0	0	0	0	1	1
2425:	3	2	1	0	0	1	1	3
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2465:	1	0	1	1	0	2	2	0
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2481:	0	1	1	1	0	2	1	0
2489:	0	0	0	0	1	0	1	0
2497:	0	0	2	0	1	1	1	0
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2513:	1	1	0	0	0	3	1	1
2521:	1	0	0	0	0	0	0	1
2529:	1	2	0	1	0	0	1	0
2537:	1	0	1	0	0	0	1	0
2545:	0	1	0	0	2	0	0	0
2553:	0	0	0	0	1	1	1	0
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2609:	0	0	1	3	8	30	31	10
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2673:	0	0	1	0	0	0	1	0
2681:	1	0	2	0	0	0	0	1
2689:	1	0	0	0	0	1	2	0
2697:	1	0	2	0	0	1	1	0
2705:	0	0	0	0	0	1	0	0
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2721:	0	1	0	1	0	0	0	2
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2753:	0	0	0	1	0	0	0	2
2761:	0	0	0	0	0	0	1	0
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2777:	0	0	1	1	0	0	0	0
2785:	0	0	1	1	0	0	0	0
2793:	0	0	0	0	0	0	0	0
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2809:	1	0	1	0	1	0	1	0
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2889:	0	0	0	1	1	0	0	0
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2953:	0	0	0	0	0	0	1	0
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2969:	1	0	1	2	0	0	0	1
2977:	0	0	0	1	0	1	0	0
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2993:	0	1	1	1	0	0	0	0
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3009:	0	0	0	0	0	0	0	0
3017:	0	0	0	0	0	0	0	0
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3057:	0	0	0	1	0	0	0	0
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3073:	1	0	0	0	0	0	0	0
3081:	0	0	1	1	0	1	0	1
3089:	1	0	0	0	0	0	0	0
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3121:	0	0	2	0	0	0	0	0
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3185:	0	0	1	0	0	0	0	0
3193:	0	0	1	1	1	0	0	0
3201:	1	0	0	0	0	0	0	0
3209:	0	0	1	1	0	0	0	0
3217:	0	0	0	0	1	0	0	0
3225:	0	0	0	0	0	1	0	2
3233:	0	0	0	0	0	0	1	0
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3249:	0	0	0	2	1	0	1	0
3257:	0	0	0	0	0	1	0	0
3265:	0	0	0	0	0	0	1	0
3273:	0	0	0	0	0	1	0	0
3281:	0	0	0	0	1	1	0	0
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3425:	0	0	0	0	0	0	0	0
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3617:	0	0	0	0	0	1	0	0
3625:	0	1	1	0	0	0	0	0
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3641:	0	0	0	0	0	0	0	0
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3657:	0	0	0	0	0	0	0	0
3665:	0	0	1	0	0	0	0	0
3673:	0	0	0	0	0	0	0	0
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3753:	0	0	0	0	0	0	0	0
3761:	0	0	0	0	0	0	0	0
3769:	0	0	0	0	0	0	1	0
3777:	0	0	0	0	0	0	0	1
3785:	0	0	1	0	0	0	0	0

3793:	0	0	0	0	0	0	0	0
3801:	0	0	1	0	0	0	0	0
3809:	0	0	0	0	0	0	0	0
3817:	0	1	0	0	0	0	0	1
3825:	0	0	0	0	0	0	0	1
3833:	0	0	0	0	0	0	0	0
3841:	0	1	0	0	0	0	0	0
3849:	0	1	0	0	0	0	0	0
3857:	0	1	0	0	1	1	0	0
3865:	0	0	0	0	0	0	0	1
3873:	0	0	0	0	0	0	0	0
3881:	0	0	0	0	0	0	0	0
3889:	0	0	0	0	1	0	0	1
3897:	0	0	0	0	0	0	0	0
3905:	0	0	0	0	0	0	0	0
3913:	0	0	0	0	0	0	0	0
3921:	0	0	0	0	0	0	1	0
3929:	0	0	0	0	0	0	0	0
3937:	1	0	0	0	0	0	0	0
3945:	0	0	0	0	0	0	0	0
3953:	0	0	0	0	0	0	1	0
3961:	1	0	0	0	0	1	0	0
3969:	2	0	0	1	0	0	0	0
3977:	0	0	0	0	0	0	0	0
3985:	0	0	0	0	0	0	0	0
3993:	0	0	0	0	0	0	0	0
4001:	0	0	1	0	0	0	0	0
4009:	0	0	0	0	0	0	0	0
4017:	1	1	0	0	0	0	0	0
4025:	0	0	0	0	1	0	1	0
4033:	0	0	0	0	0	0	1	0
4041:	0	0	0	0	0	0	0	0
4049:	1	0	0	0	0	2	0	1
4057:	0	0	0	0	0	0	0	0
4065:	0	0	0	0	0	0	0	1
4073:	0	0	0	1	0	0	0	1
4081:	0	0	0	0	0	0	0	0
4089:	1	2	0	1	0	0	0	0

Sample ID : 1111068-05

Acquisition date : 11-DEC-2011 13:22:26

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12/11/11

VAX/VMS Peak Search Report Generated 11-DEC-2011 14:22:44.16

Configuration : DKA100: [GAMMA.SCUSR.ARCHIVE] SMP_111106805_GE2_GAS1102_172281.
 Analyses by : PEAK V16.9 ENBACK V1.6 PEAKEFF V2.2
 Client ID : BKGD N-31-111107
 Deposition Date :
 Sample Date : 7-NOV-2011 00:00:00. Acquisition date : 11-DEC-2011 13:22:26
 Sample ID : 1111068-05 Sample Quantity : 3.82940E+02 GRAM
 Sample type : SOIL Sample Geometry : 0
 Detector name : GE2 Detector Geometry: GAS-1102
 Elapsed live time: 0 01:00:00.00 Elapsed real time: 0 01:00:01.26 0.0%
 Start channel : 5 End channel : 4096
 Sensitivity : 2.40000 Gaussian : 15.00000
 Critical level : Yes

Post-NID Peak Search Report

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides
0	46.74*	102	663	1.47	46.69	43	8	92.0		PB-210
0	76.38*	1431	1322	3.68	76.34	71	10	10.9		
1	84.17	109	456	1.47	84.13	82	15	56.6	3.33E+01	
1	88.17	287	407	1.48	88.13	82	15	23.4		SN-126 CD-109
1	92.90*	237	338	1.49	92.86	82	15	29.7		
0	99.60	67	394	2.00	99.57	98	5	92.0		
0	128.66	93	445	3.05	128.64	126	6	74.5		
0	186.17*	216	567	1.47	186.17	182	10	44.8		RA-226
0	209.96	72	404	1.70	209.97	207	7	96.3		
5	238.78*	1019	175	1.48	238.80	235	12	7.4	2.01E+00	PB-212
5	241.83*	258	245	2.05	241.85	235	12	31.7		RA-224
0	277.38	42	177	1.78	277.42	276	5	99.0		
3	295.28*	440	188	1.92	295.32	289	20	13.9	3.17E+00	PB-214
3	300.22	89	149	1.77	300.27	289	20	46.1		PB-212
0	329.88	110	222	5.74	329.94	325	10	54.3		
0	338.59*	217	196	1.96	338.65	335	9	27.1		AC-228
1	348.10	23	23	1.82	348.17	347	10	43.2	1.56E+00	
1	352.00*	616	90	1.49	352.06	347	10	9.5		PB-214
0	409.57	54	158	2.01	409.66	406	8	85.5		
0	418.75	66	134	1.31	418.84	415	8	65.7		
0	462.84	52	99	1.29	462.94	460	6	67.3		
0	502.86	30	92	2.49	502.98	500		7112.1		
0	510.94*	115	125	1.74	511.07	507	9	43.6		
0	582.93*	329	102	1.99	583.08	577	11	16.5		TL-208
0	609.22*	479	165	1.94	609.38	603	12	14.4		BI-214
0	662.64*	85	126	1.81	662.82	658	11	56.7		CS-137
0	727.52	51	81	2.09	727.73	724	9	70.1		BI-212
0	769.51	41	106	2.01	769.73	765		11102.4		
0	795.25	22	44	2.21	795.48	792		6105.9		
0	806.20	37	35	3.54	806.43	803	7	62.4		
5	826.39	19	21	3.20	826.63	824	24	92.2	2.64E+00	
5	840.53	37	39	3.21	840.78	824	24	76.5		
5	844.94	14	24	2.16	845.19	824		24129.1		
0	859.71	35	69	3.01	859.96	856	9	91.0		TL-208
0	911.27*	202	94	1.95	911.55	907	11	23.5		AC-228

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12/11/11

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides
0	934.47	44	47	1.75	934.75	930	9	64.0		
1	958.91	17	25	2.27	959.21	957	17	94.3	2.39E+00	
1	964.71	61	31	2.06	965.00	957	17	38.1		
1	968.73*	123	38	2.26	969.03	957	17	24.8		AC-228
0	1048.79	19	23	2.47	1049.12	1047	5	91.5		
0	1120.38*	103	73	1.88	1120.73	1115	10	37.3		BI-214
0	1155.66	31	79	9.34	1156.03	1149	131	21.2		
0	1237.98*	50	60	2.72	1238.38	1234	10	65.1		
0	1280.27	38	35	4.69	1280.68	1275	10	66.0		
0	1333.27*	26	31	9.84	1333.70	1328	131	103.6		
1	1377.53	32	19	2.49	1377.97	1374	21	57.3	9.80E-01	
1	1384.32	11	16	2.49	1384.77	1374	211	131.6		
0	1446.22	16	16	6.52	1446.70	1441	111	109.1		
0	1460.57*	692	35	2.30	1461.05	1456	11	8.4		K-40
0	1561.02	16	9	2.44	1561.54	1556	12	92.1		
2	1583.97	10	5	2.85	1584.49	1582	14	92.1	1.49E+00	
2	1587.58	22	9	2.85	1588.10	1582	14	74.5		
2	1591.98	20	7	2.84	1592.50	1582	14	66.7		
0	1729.97	22	13	2.83	1730.55	1725	9	75.0		
0	1764.23*	92	11	2.24	1764.83	1760	11	25.9		BI-214
0	1794.54	11	5	2.76	1795.14	1791	9	95.5		
0	1848.78	10	10	1.73	1849.40	1845	91	28.5		
0	2102.97*	24	0	5.31	2103.69	2099	12	43.8		
0	2142.48	7	4	2.25	2143.22	2140	71	16.7		
0	2193.34	6	2	1.72	2194.09	2190	71	106.4		
0	2203.07*	25	13	2.30	2203.83	2200	11	67.7		BI-214
0	2295.87*	11	0	1.24	2296.67	2293	8	72.7		
0	2613.59*	106	0	2.74	2614.50	2610	10	20.2		TL-208

Total number of lines in spectrum 63
 Number of unidentified lines 28
 Number of lines tentatively identified by NID 35 55.56%

Nuclide Type : NATURAL

Nuclide	Hlife	Decay	Wtd Mean		Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
			Uncorrected pCi/GRAM	Decay Corr pCi/GRAM			
K-40	1.28E+09Y	1.00	2.776E+01	2.776E+01	0.384E+01	13.83	
TL-208	1.41E+10Y	1.00	1.980E+00	1.980E+00	0.292E+00	14.77	
PB-210	22.26Y	1.00	2.230E+00	2.237E+00	2.067E+00	92.43	
BI-212	1.41E+10Y	1.00	1.097E+00	1.097E+00	0.777E+00	70.81	
PB-212	1.41E+10Y	1.00	2.493E+00	2.493E+00	0.285E+00	11.42	
BI-214	1602.00Y	1.00	2.397E+00	2.397E+00	0.326E+00	13.58	
PB-214	1602.00Y	1.00	2.505E+00	2.505E+00	0.264E+00	10.55	
RA-224	1.41E+10Y	1.00	7.094E+00	7.094E+00	2.341E+00	32.99	
RA-226	1602.00Y	1.00	6.162E+00	6.163E+00	11.62E+00	188.55	
AC-228	1.41E+10Y	1.00	2.365E+00	2.365E+00	0.368E+00	15.56	
Total Activity :			5.608E+01	5.609E+01			

Nuclide Type : FISSION

Nuclide	Hlife	Decay	Wtd Mean		Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
			Uncorrected pCi/GRAM	Decay Corr pCi/GRAM			
CD-109	464.00D	1.05	5.778E+00	6.085E+00	1.722E+00	28.30	
SN-126	1.00E+05Y	1.00	5.809E-01	5.809E-01	1.604E-01	27.61	
CS-137	30.17Y	1.00	2.348E-01	2.353E-01	1.353E-01	57.51	
Total Activity :			6.594E+00	6.901E+00			

Grand Total Activity : 6.268E+01 6.299E+01

Flags: "K" = Keyline not found "M" = Manually accepted
 "E" = Manually edited "A" = Nuclide specific abn. limit

Nuclide Type: NATURAL

Nuclide	Energy	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error	Status
K-40	1460.81	10.67*	4.582E-01	2.776E+01	2.776E+01	13.83	OK
Final Mean for 1 Valid Peaks = 2.776E+01 +/- 3.838E+00 (13.83%)							
TL-208	583.14	30.22*	9.242E-01	2.311E+00	2.311E+00	19.25	OK
	860.37	4.48	6.742E-01	2.283E+00	2.283E+00	91.49	OK
	2614.66	35.85	3.402E-01	1.707E+00	1.707E+00	23.13	OK
Final Mean for 3 Valid Peaks = 1.980E+00 +/- 2.924E-01 (14.77%)							
PB-210	46.50	4.05*	2.204E+00	2.230E+00	2.237E+00	92.43	OK
Final Mean for 1 Valid Peaks = 2.237E+00 +/- 2.067E+00 (92.43%)							
BI-212	727.17	11.80*	7.716E-01	1.097E+00	1.097E+00	70.81	OK
	1620.62	2.75	4.293E-01	-----	Line Not Found	-----	Absent
Final Mean for 1 Valid Peaks = 1.097E+00 +/- 7.768E-01 (70.81%)							
PB-212	238.63	44.60*	1.817E+00	2.466E+00	2.466E+00	11.75	OK
	300.09	3.41	1.555E+00	3.276E+00	3.276E+00	47.02	OK
Final Mean for 2 Valid Peaks = 2.493E+00 +/- 2.847E-01 (11.42%)							
BI-214	609.31	46.30*	8.915E-01	2.274E+00	2.274E+00	17.44	OK
	1120.29	15.10	5.508E-01	2.424E+00	2.424E+00	38.65	OK
	1764.49	15.80	4.084E-01	2.794E+00	2.794E+00	27.82	OK
	2204.22	4.98	3.644E-01	2.730E+00	2.730E+00	68.50	OK
Final Mean for 4 Valid Peaks = 2.397E+00 +/- 3.256E-01 (13.58%)							
PB-214	295.21	19.19	1.574E+00	2.856E+00	2.856E+00	16.67	OK
	351.92	37.19*	1.383E+00	2.349E+00	2.349E+00	13.52	OK
Final Mean for 2 Valid Peaks = 2.505E+00 +/- 2.642E-01 (10.55%)							
RA-224	240.98	3.95*	1.806E+00	7.094E+00	7.094E+00	32.99	OK
Final Mean for 1 Valid Peaks = 7.094E+00 +/- 2.341E+00 (32.99%)							
RA-226	186.21	3.28*	2.099E+00	6.162E+00	6.163E+00	188.55	OK
Final Mean for 1 Valid Peaks = 6.163E+00 +/- 1.162E+01 (188.55%)							
AC-228	338.32	11.40	1.425E+00	2.620E+00	2.620E+00	28.77	OK
	911.07	27.70*	6.445E-01	2.216E+00	2.216E+00	25.51	OK
	969.11	16.60	6.144E-01	2.372E+00	2.372E+00	26.71	OK
Final Mean for 3 Valid Peaks = 2.365E+00 +/- 3.681E-01 (15.56%)							

Nuclide Type: FISSION

Nuclide	Energy	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error	Status
CD-109	88.03	3.72*	2.618E+00	5.778E+00	6.085E+00	28.30	OK
Final Mean for 1 Valid Peaks =				6.085E+00 +/- 1.722E+00 (28.30%)			
SN-126	87.57	37.00*	2.618E+00	5.809E-01	5.809E-01	27.61	OK
Final Mean for 1 Valid Peaks =				5.809E-01 +/- 1.604E-01 (27.61%)			
CS-137	661.65	85.12*	8.333E-01	2.348E-01	2.353E-01	57.51	OK
Final Mean for 1 Valid Peaks =				2.353E-01 +/- 1.353E-01 (57.51%)			

Flag: "*" = Keyline

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.776E+01	3.838E+00	1.026E+00	1.052E-01	27.067
CD-109	6.085E+00	1.722E+00	2.129E+00	3.286E-01	2.857
SN-126	5.809E-01	1.604E-01	2.032E-01	2.872E-02	2.858
CS-137	2.353E-01	1.353E-01	1.099E-01	9.494E-03	2.141
TL-208	1.980E+00	2.924E-01	2.730E-01	2.484E-02	7.250
PB-210	2.237E+00	2.067E+00	1.854E+00	1.554E-01	1.206
BI-212	1.097E+00	7.768E-01	8.631E-01	7.619E-02	1.271
PB-212	2.493E+00	2.847E-01	1.593E-01	1.311E-02	15.649
BI-214	2.397E+00	3.256E-01	2.089E-01	1.874E-02	11.477
PB-214	2.505E+00	2.642E-01	2.029E-01	1.777E-02	12.348
RA-224	7.094E+00	2.341E+00	1.812E+00	1.491E-01	3.916
RA-226	6.163E+00	1.162E+01	2.243E+00	4.107E+00	2.748
AC-228	2.365E+00	3.681E-01	4.083E-01	3.672E-02	5.792

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	6.294E-01		6.927E-01	1.315E+00	1.216E-01	0.479
NA-22	-1.554E-02		8.113E-02	1.227E-01	1.209E-02	-0.127
AL-26	6.562E-03		3.606E-02	7.645E-02	6.911E-03	0.086
TI-44	-4.601E-02		5.999E-02	9.122E-02	8.553E-03	-0.504
SC-46	-2.351E-02		7.946E-02	1.370E-01	1.228E-02	-0.172
V-48	-1.202E-02		2.616E-01	4.630E-01	4.238E-02	-0.026
CR-51	-2.625E-01		1.253E+00	1.852E+00	1.668E-01	-0.142
MN-54	5.308E-02		6.240E-02	1.189E-01	1.067E-02	0.446
CO-56	-2.725E-02		8.418E-02	1.286E-01	1.155E-02	-0.212
CO-57	-2.092E-02		5.641E-02	8.575E-02	7.273E-03	-0.244
CO-58	5.183E-02		7.472E-02	1.319E-01	1.185E-02	0.393
FE-59	9.207E-02		1.921E-01	3.561E-01	3.537E-02	0.259
CO-60	-2.779E-02		7.920E-02	1.360E-01	1.261E-02	-0.204
ZN-65	3.389E-02		1.815E-01	2.888E-01	2.682E-02	0.117
SE-75	5.798E-02		9.423E-02	1.598E-01	1.325E-02	0.363
RB-82	-1.934E-01		1.152E+00	1.808E+00	1.614E-01	-0.107
RB-83	9.596E-02		1.403E-01	2.529E-01	4.045E-02	0.379
KR-85	2.593E+01		1.484E+01	2.631E+01	2.436E+00	0.986
SR-85	1.630E-01		9.332E-02	1.654E-01	1.532E-02	0.986
Y-88	1.545E-02		5.798E-02	1.190E-01	1.062E-02	0.130
NB-93M	1.177E+01		5.107E+00	6.599E+00	1.987E+00	1.784
NB-94	-2.864E-02		5.860E-02	9.915E-02	8.899E-03	-0.289
NB-95	1.436E-01		1.413E-01	2.447E-01	2.181E-02	0.587
ZR-95	8.677E-02		1.539E-01	2.853E-01	2.779E-02	0.304
RU-103	2.551E-02		1.042E-01	1.729E-01	2.517E-02	0.148
RU-106	2.939E-01		5.388E-01	1.005E+00	1.362E-01	0.292
AG-108M	-9.393E-03		7.130E-02	1.120E-01	9.875E-03	-0.084
AG-110M	-2.084E-03		7.211E-02	1.151E-01	9.957E-03	-0.018
SN-113	-5.603E-02		8.036E-02	1.391E-01	1.280E-02	-0.403
TE123M	-2.170E-02		6.250E-02	1.024E-01	8.234E-03	-0.212

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SB-124	1.759E-03		9.120E-02	1.465E-01	1.320E-02	0.012
I-125	-3.116E+00		1.653E+00	2.496E+00	2.560E-01	-1.249
SB-125	3.823E-02		1.611E-01	2.829E-01	2.625E-02	0.135
SB-126	4.038E-01		8.127E-01	1.362E+00	1.200E-01	0.296
I-129	-3.715E-02		1.539E-01	2.632E-01	3.226E-02	-0.141
I-131	-7.934E-02		1.010E+00	1.822E+00	1.608E-01	-0.044
BA-133	1.679E-03		8.382E-02	1.262E-01	1.680E-02	0.013
CS-134	-7.909E-03		6.730E-02	1.064E-01	9.595E-03	-0.074
CS-135	3.573E-01		3.131E-01	5.400E-01	4.439E-02	0.662
CS-136	4.868E-01	+	4.481E-01	9.198E-01	8.731E-02	0.529
LA-138	5.418E-03		9.267E-02	1.499E-01	1.511E-02	0.036
CE-139	-6.549E-02		6.534E-02	1.033E-01	8.226E-03	-0.634
BA-140	1.239E-01		1.230E+00	2.228E+00	7.420E-01	0.056
LA-140	-2.504E-01		3.732E-01	5.442E-01	5.310E-02	-0.460
CE-141	2.751E-01		2.076E-01	3.376E-01	8.738E-02	0.815
CE-144	2.187E-02		4.795E-01	7.407E-01	6.175E-02	0.030
PM-144	-3.228E-02		6.382E-02	1.063E-01	9.309E-03	-0.304
PM-145	-6.536E-01		5.251E-01	4.640E-01	3.029E-01	-1.409
PM-146	-6.444E-02		1.277E-01	2.116E-01	1.947E-02	-0.305
ND-147	4.910E-01		3.210E+00	5.837E+00	5.395E-01	0.084
EU-152	-1.045E-02		4.712E-01	8.229E-01	9.981E-02	-0.013
GD-153	-6.171E-02		2.163E-01	3.322E-01	3.873E-02	-0.186
EU-154	-4.396E-02		2.243E-01	3.390E-01	3.341E-02	-0.130
EU-155	8.608E-01		2.364E-01	3.278E-01	4.544E-02	2.626
EU-156	1.613E+00		2.431E+00	4.255E+00	9.777E-01	0.379
HO-166M	-9.316E-03		1.028E-01	1.819E-01	1.598E-02	-0.051
HF-172	1.625E-01		4.102E-01	6.462E-01	5.445E-02	0.251
LU-172	-1.805E+00		3.612E+00	6.022E+00	5.584E-01	-0.300
LU-173	3.484E-01		2.615E-01	4.256E-01	3.495E-02	0.819
HF-175	4.195E-02		9.394E-02	1.297E-01	1.129E-02	0.324
LU-176	1.791E-02		5.198E-02	8.055E-02	6.797E-03	0.222
TA-182	1.294E+00	+	5.001E-01	7.544E-01	7.002E-02	1.715
IR-192	4.522E-02		1.330E-01	2.238E-01	2.066E-02	0.202
HG-203	1.317E-01		1.131E-01	1.828E-01	1.546E-02	0.720
BI-207	6.315E-02		5.386E-02	1.031E-01	9.435E-03	0.612
BI-210M	4.795E-02		1.012E-01	1.706E-01	1.404E-02	0.281
PB-211	4.214E-02		1.831E+00	2.975E+00	2.683E-01	0.014
RN-219	-6.902E-02		8.102E-01	1.307E+00	1.176E-01	-0.053
RA-223	7.398E-02		1.308E+00	1.977E+00	1.694E-01	0.037
RA-225	-1.196E+00		8.861E-01	1.319E+00	1.224E-01	-0.907
TH-227	2.067E+00		5.608E-01	9.446E-01	7.767E-02	2.188
TH-230	-1.190E+01		1.529E+01	2.324E+01	2.168E+00	-0.512
PA-231	2.233E+00		2.135E+00	3.687E+00	3.099E-01	0.606
TH-231	-3.706E-01		7.577E-01	1.238E+00	1.823E-01	-0.299
PA-233	-4.468E-02		3.168E-01	4.715E-01	1.056E-01	-0.095
PA-234	4.174E-02		2.345E-01	3.645E-01	3.048E-02	0.115
PA-234M	3.927E+00		7.282E+00	1.353E+01	1.243E+00	0.290
TH-234	1.772E+00		1.406E+00	2.482E+00	2.067E-01	0.714

----- Non-Identified Nuclides -----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
U-235	4.696E-01		4.435E-01	7.458E-01	1.291E-01	0.630
NP-237	2.085E+00		5.724E-01	7.936E-01	1.100E-01	2.627
AM-241	-7.123E-02		1.391E-01	2.335E-01	1.746E-02	-0.305
AM-243	7.628E-01		1.348E-01	1.892E-01	2.074E-02	4.031
CM-243	3.609E-01	+	3.590E-01	6.022E-01	4.939E-02	0.599

Total number of lines in spectrum 63
 Number of unidentified lines 28
 Number of lines tentatively identified by NID 35 55.56%

Nuclide Type : NATURAL

Nuclide	Hlife	Decay	Wtd Mean		Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
			Uncorrected pCi/GRAM	Decay Corr pCi/GRAM			
K-40	1.28E+09Y	1.00	2.776E+01	2.776E+01	0.384E+01	13.83	
TL-208	1.41E+10Y	1.00	1.980E+00	1.980E+00	0.292E+00	14.77	
PB-210	22.26Y	1.00	2.230E+00	2.237E+00	2.067E+00	92.43	
BI-212	1.41E+10Y	1.00	1.097E+00	1.097E+00	0.777E+00	70.81	
PB-212	1.41E+10Y	1.00	2.493E+00	2.493E+00	0.285E+00	11.42	
BI-214	1602.00Y	1.00	2.397E+00	2.397E+00	0.326E+00	13.58	
PB-214	1602.00Y	1.00	2.505E+00	2.505E+00	0.264E+00	10.55	
RA-224	1.41E+10Y	1.00	7.094E+00	7.094E+00	2.341E+00	32.99	
RA-226	1602.00Y	1.00	6.162E+00	6.163E+00	11.62E+00	188.55	
AC-228	1.41E+10Y	1.00	2.365E+00	2.365E+00	0.368E+00	15.56	
Total Activity :			5.608E+01	5.609E+01			

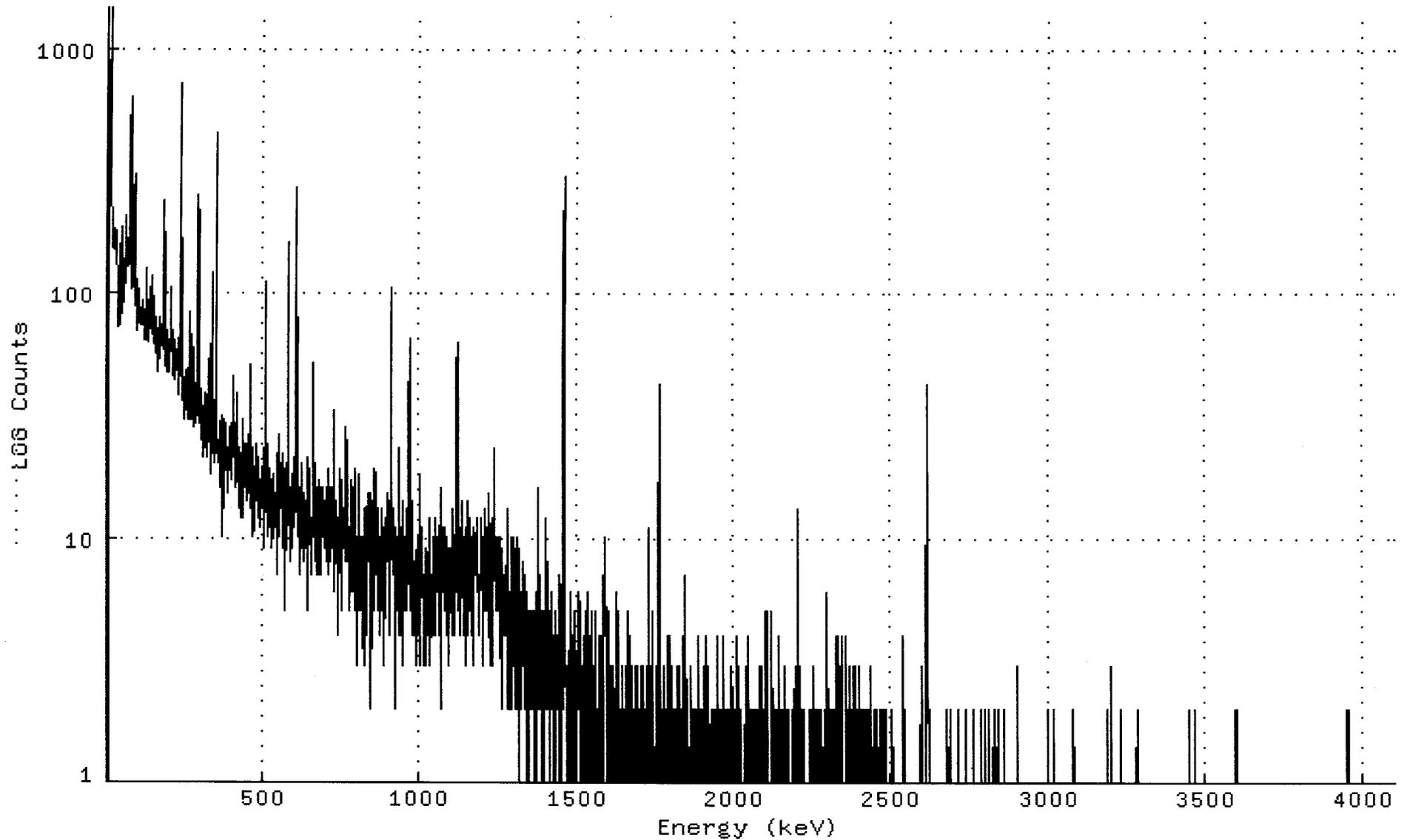
Nuclide Type : FISSION

Nuclide	Hlife	Decay	Wtd Mean		Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
			Uncorrected pCi/GRAM	Decay Corr pCi/GRAM			
CD-109	464.00D	1.05	5.778E+00	6.085E+00	1.722E+00	28.30	
SN-126	1.00E+05Y	1.00	5.809E-01	5.809E-01	1.604E-01	27.61	
CS-137	30.17Y	1.00	2.348E-01	2.353E-01	1.353E-01	57.51	
Total Activity :			6.594E+00	6.901E+00			

Grand Total Activity : 6.268E+01 6.299E+01

Flags: "K" = Keyline not found "M" = Manually accepted
 "E" = Manually edited "A" = Nuclide specific abn. limit

Spectrum : DKA100:[GAMMA.SCUSR.ARCHIVE]SMP_111106805_GE2_GAS1102_172281.CNF;1
Title :
Sample Title: BKGD N-31-111107
Start Time: 11-DEC-2011 13:22 Sample Time: 7-NOV-2011 00:00: Energy Offset: 6.87229E-02
Real Time : 0 01:00:01.26 Sample ID : 1111068-05 Energy Slope : 9.99625E-01
Live Time : 0 01:00:00.00 Sample Type: SOIL Energy Quad : 0.00000E+00



Channel Contents for DKA100:[GAMMA.SCUSR.ARCHIVE] SMP_111106805_GE2_GAS1102_1722

Channel

1:	0	0	0	0	0	0	0	15
9:	256	665	1184	1038	482	744	1468	297
17:	164	179	157	152	171	176	170	165
25:	150	170	180	161	178	152	154	141
33:	169	143	112	100	121	101	81	72
41:	73	77	74	87	77	133	185	82
49:	87	95	83	92	105	113	105	91
57:	95	137	109	143	117	129	198	205
65:	133	141	127	161	136	145	130	146
73:	158	226	525	271	629	449	142	117
81:	137	102	104	176	171	114	234	270
89:	118	218	142	168	304	191	106	69
97:	82	86	112	101	86	76	75	90
105:	85	103	79	80	82	75	86	81
113:	73	81	92	81	73	85	74	83
121:	75	63	84	73	81	69	102	78
129:	125	100	64	83	88	80	93	62
137:	86	83	87	72	72	71	95	117
145:	81	79	79	73	71	61	96	83
153:	65	88	74	66	69	78	56	57
161:	72	71	68	65	47	67	67	63
169:	79	74	53	64	72	68	61	73
177:	60	61	67	78	64	58	77	59
185:	92	237	131	55	54	63	57	50
193:	48	69	47	61	58	60	57	57
201:	52	47	53	64	57	76	59	58
209:	104	90	54	62	49	53	45	61
217:	48	63	57	52	49	44	51	56
225:	55	52	48	58	47	42	43	65
233:	38	45	49	45	55	318	715	138
241:	129	165	87	38	36	42	37	39
249:	35	30	37	42	47	35	36	45
257:	48	33	37	38	30	47	39	49
265:	33	43	43	30	47	83	54	39
273:	37	38	37	30	61	57	39	32
281:	41	35	28	33	32	42	29	33
289:	32	32	31	43	44	52	247	192
297:	55	29	35	70	66	25	34	31
305:	32	28	34	27	31	31	21	24
313:	30	39	30	29	33	23	30	24
321:	29	38	26	30	21	27	30	53
329:	47	37	30	28	38	21	18	24
337:	36	107	120	28	34	31	22	25
345:	23	25	20	36	21	24	123	445
353:	157	26	23	20	25	22	22	22
361:	22	22	25	16	22	28	17	28
369:	31	10	26	25	29	25	20	23
377:	27	30	19	13	26	21	19	22
385:	29	22	22	22	23	19	15	18
393:	19	20	22	24	21	27	29	17
401:	25	24	27	26	26	21	22	26
409:	45	40	21	20	17	17	16	27
417:	18	39	25	26	28	21	13	17
425:	18	19	23	21	20	14	12	22

433:	22	16	12	30	12	17	20	17
441:	24	16	16	18	22	23	15	24
449:	20	18	19	14	19	15	21	22
457:	26	24	20	23	16	28	50	19
465:	15	11	23	11	16	15	10	11
473:	12	15	16	16	16	24	19	18
481:	15	17	14	19	12	19	18	20
489:	21	11	17	15	14	14	15	17
497:	13	19	14	14	18	21	23	16
505:	14	16	9	17	22	54	111	56
513:	36	16	11	19	10	11	14	19
521:	16	18	15	12	13	9	13	16
529:	15	13	17	17	10	16	18	17
537:	13	12	12	12	11	15	12	14
545:	7	22	16	12	9	18	15	13
553:	26	12	10	14	20	14	13	18
561:	20	17	11	17	9	18	22	16
569:	15	18	19	18	17	5	15	9
577:	9	11	16	20	16	51	160	117
585:	19	15	8	11	10	16	13	11
593:	9	18	16	12	11	11	21	11
601:	19	14	15	12	13	15	18	60
609:	268	209	30	17	15	10	16	15
617:	10	7	10	9	9	16	9	20
625:	10	9	9	11	8	15	11	8
633:	11	11	14	10	11	14	13	12
641:	9	10	13	5	14	15	21	11
649:	16	11	14	19	12	7	10	11
657:	12	12	12	10	35	51	22	13
665:	20	20	12	14	8	13	13	10
673:	8	13	14	7	16	11	15	10
681:	16	7	17	7	9	13	16	10
689:	9	15	10	11	13	16	11	13
697:	9	9	12	14	11	16	15	11
705:	11	12	8	19	17	7	11	9
713:	8	16	11	8	10	10	15	16
721:	12	9	12	9	9	18	29	33
729:	10	10	8	6	10	12	12	14
737:	8	10	10	10	6	4	12	8
745:	11	11	15	9	19	10	5	16
753:	7	12	17	11	10	13	9	9
761:	11	9	10	13	8	10	16	28
769:	22	11	8	15	11	11	7	11
777:	5	7	7	9	6	10	7	8
785:	9	17	15	8	13	6	10	7
793:	7	15	19	13	5	8	6	10
801:	10	7	3	7	14	18	12	13
809:	5	5	10	9	6	7	6	5
817:	5	5	7	8	10	6	4	3
825:	9	8	13	4	5	6	7	4
833:	7	10	12	15	10	8	12	11
841:	15	15	5	7	12	7	2	6
849:	7	10	14	8	5	7	7	5
857:	9	10	19	18	17	10	9	7
865:	11	8	13	9	8	5	5	10
873:	9	7	9	4	9	11	13	5
881:	9	7	7	11	10	7	5	10
889:	3	7	12	9	11	5	10	9
897:	11	9	8	15	11	7	9	14
905:	4	10	7	9	12	31	105	74

913:	23	13	7	13	9	8	10	8
921:	10	10	2	11	6	6	8	10
929:	6	5	6	5	15	23	10	12
937:	11	4	6	4	9	5	7	11
945:	7	3	5	7	14	6	6	9
953:	8	7	10	5	5	5	13	5
961:	5	5	8	20	33	11	10	29
969:	65	34	12	5	6	5	11	8
977:	8	4	4	14	4	5	6	8
985:	7	7	8	8	3	6	4	8
993:	10	4	4	9	5	7	3	11
1001:	18	9	9	6	8	7	7	9
1009:	7	11	8	4	3	5	3	7
1017:	7	7	6	3	9	5	8	7
1025:	5	6	4	8	7	11	4	5
1033:	8	12	3	5	6	4	7	7
1041:	6	5	7	10	7	4	6	9
1049:	11	12	4	5	9	6	8	8
1057:	10	8	8	7	4	8	8	7
1065:	8	16	8	7	2	9	9	10
1073:	6	7	11	8	8	5	8	8
1081:	11	11	8	8	10	10	6	4
1089:	6	7	4	6	3	9	3	6
1097:	7	9	7	8	5	6	4	6
1105:	5	7	5	13	8	4	10	9
1113:	6	9	8	8	6	11	15	47
1121:	62	13	5	7	5	10	6	6
1129:	5	11	7	4	8	14	10	7
1137:	6	6	10	10	6	7	8	4
1145:	5	8	7	7	3	11	4	5
1153:	8	14	13	13	9	7	12	6
1161:	5	9	9	10	4	9	8	10
1169:	3	8	7	11	5	8	10	8
1177:	7	7	10	9	12	8	7	9
1185:	7	6	7	7	5	5	6	5
1193:	4	9	9	7	7	12	9	5
1201:	3	7	10	9	6	8	8	9
1209:	13	5	7	11	8	8	10	5
1217:	8	6	4	6	4	15	5	3
1225:	10	8	9	8	11	12	11	8
1233:	3	9	4	11	15	22	23	12
1241:	7	8	5	7	10	6	9	10
1249:	7	8	5	5	9	4	5	8
1257:	10	10	5	2	9	3	7	7
1265:	3	7	5	4	6	6	7	5
1273:	5	5	4	6	7	6	10	8
1281:	8	9	13	2	3	5	6	4
1289:	3	2	9	5	10	8	6	2
1297:	10	6	7	3	5	7	7	2
1305:	5	8	6	9	2	6	5	10
1313:	3	5	9	6	7	6	3	1
1321:	4	2	6	3	3	6	6	3
1329:	7	7	8	7	7	2	5	2
1337:	5	5	3	1	1	6	5	4
1345:	2	5	1	4	3	2	2	5
1353:	2	4	3	3	3	4	5	3
1361:	2	4	2	5	1	4	4	4
1369:	2	4	3	0	6	0	2	8
1377:	9	16	11	6	2	4	3	3
1385:	7	3	2	3	5	1	5	5

1393:	3	1	3	2	2	2	5	2
1401:	4	12	3	3	2	6	3	8
1409:	5	7	2	2	4	5	2	1
1417:	4	4	2	6	2	3	2	2
1425:	4	1	4	3	4	3	3	3
1433:	5	0	4	3	4	2	3	2
1441:	2	5	3	1	1	2	7	6
1449:	2	2	1	1	2	6	6	2
1457:	4	4	41	160	298	184	33	3
1465:	5	3	2	3	2	3	1	2
1473:	1	2	0	2	3	2	6	2
1481:	1	4	2	4	2	0	2	1
1489:	4	2	2	1	5	0	5	4
1497:	1	1	1	3	2	2	6	5
1505:	2	3	2	6	5	5	1	2
1513:	3	2	2	3	2	2	0	0
1521:	1	4	2	2	1	1	2	5
1529:	1	3	3	2	6	2	3	4
1537:	1	4	1	2	4	3	0	4
1545:	1	1	2	2	2	2	5	1
1553:	3	0	1	1	1	3	1	4
1561:	5	3	1	2	2	1	0	1
1569:	2	2	1	3	0	4	1	2
1577:	0	2	1	4	1	1	1	5
1585:	2	5	5	10	5	4	5	6
1593:	9	3	0	2	4	1	0	0
1601:	2	4	0	2	5	1	1	2
1609:	1	3	0	1	2	2	1	1
1617:	3	2	1	2	2	2	1	0
1625:	6	2	2	2	3	5	5	1
1633:	2	3	2	0	1	1	2	1
1641:	1	2	1	1	1	2	3	2
1649:	1	2	0	1	0	1	1	1
1657:	3	1	3	1	3	5	4	3
1665:	4	0	2	1	4	3	2	1
1673:	1	1	3	3	3	2	1	2
1681:	2	1	1	2	0	2	0	3
1689:	3	0	2	2	3	2	1	2
1697:	0	0	2	1	0	2	1	3
1705:	0	2	0	0	2	3	1	3
1713:	2	2	0	0	1	2	1	0
1721:	0	0	1	3	1	2	1	3
1729:	11	7	7	3	0	2	2	2
1737:	1	2	3	1	0	0	1	5
1745:	1	0	1	0	0	1	0	2
1753:	3	0	1	2	0	1	2	0
1761:	1	2	10	28	42	19	5	1
1769:	1	1	1	2	0	1	0	1
1777:	0	1	0	0	3	0	2	0
1785:	0	2	1	2	0	1	0	0
1793:	4	4	3	1	1	2	0	1
1801:	2	3	1	1	0	1	1	0
1809:	1	2	1	1	2	1	0	0
1817:	1	1	0	0	3	3	0	1
1825:	1	3	2	0	0	1	1	2
1833:	0	1	2	0	2	2	4	2
1841:	0	2	1	4	0	1	6	7
1849:	1	2	2	1	0	1	1	1
1857:	0	1	1	0	2	2	1	1
1865:	3	0	2	1	0	1	2	0

1873:	0	2	2	2	2	0	0	0
1881:	1	2	0	1	1	1	4	0
1889:	2	1	1	0	0	1	2	2
1897:	1	1	1	1	2	1	3	2
1905:	1	1	2	1	4	0	2	0
1913:	1	1	0	0	0	0	1	1
1921:	3	1	0	0	1	0	0	1
1929:	1	2	0	1	2	0	2	2
1937:	0	0	2	2	0	1	2	1
1945:	0	1	4	1	2	3	1	2
1953:	0	0	0	0	2	2	1	1
1961:	1	0	2	0	1	4	1	3
1969:	2	1	1	1	1	0	2	2
1977:	1	0	1	1	2	2	0	0
1985:	0	1	0	0	0	1	1	0
1993:	3	2	0	1	2	2	0	2
2001:	1	2	0	0	2	0	0	4
2009:	1	1	1	1	1	1	3	0
2017:	3	1	1	0	1	1	2	0
2025:	1	0	0	0	0	0	1	0
2033:	0	1	1	1	3	1	2	2
2041:	3	1	2	1	3	4	1	2
2049:	1	0	2	0	0	0	1	2
2057:	0	0	1	0	2	0	0	1
2065:	1	0	2	1	0	2	2	2
2073:	1	0	2	0	0	0	0	1
2081:	2	1	3	1	0	2	1	0
2089:	3	0	1	0	2	0	1	1
2097:	2	0	0	3	2	3	5	5
2105:	3	1	1	2	1	0	0	0
2113:	1	0	0	0	3	5	0	2
2121:	3	2	0	1	0	1	0	0
2129:	2	1	2	0	0	2	1	1
2137:	0	1	0	0	1	2	4	3
2145:	1	0	2	1	1	1	2	0
2153:	0	0	2	0	0	3	0	0
2161:	0	0	1	2	0	1	1	2
2169:	1	1	0	2	2	0	1	1
2177:	0	0	1	0	1	0	1	2
2185:	1	0	2	0	0	1	0	1
2193:	1	2	3	0	0	0	0	0
2201:	3	1	10	13	7	2	2	2
2209:	1	1	3	2	1	0	2	2
2217:	0	0	1	0	1	1	2	0
2225:	1	1	0	0	1	1	1	1
2233:	0	1	0	0	1	0	2	0
2241:	1	1	1	1	1	2	1	1
2249:	1	2	2	0	3	3	0	2
2257:	1	1	1	0	1	2	0	0
2265:	1	2	2	1	1	2	0	1
2273:	0	2	1	2	1	1	0	1
2281:	1	0	1	0	1	2	2	0
2289:	1	1	1	0	0	2	0	2
2297:	6	0	2	0	0	1	1	0
2305:	0	2	1	0	1	1	2	0
2313:	0	0	1	2	1	2	2	2
2321:	1	0	0	2	4	0	1	0
2329:	2	4	1	0	0	0	0	1
2337:	3	2	1	4	0	1	1	2
2345:	1	1	1	0	0	0	0	1

2353:	2	4	1	2	2	0	2	0
2361:	0	2	0	3	0	1	0	0
2369:	2	1	2	0	1	2	1	0
2377:	1	0	2	2	1	3	0	1
2385:	3	2	0	1	0	0	0	1
2393:	1	2	2	0	1	3	1	0
2401:	0	2	0	0	0	2	0	1
2409:	1	1	0	2	1	2	0	1
2417:	0	0	1	2	2	1	2	1
2425:	1	1	0	2	2	0	3	1
2433:	1	1	3	2	1	0	1	0
2441:	1	1	1	0	2	1	2	1
2449:	1	1	2	1	0	0	0	0
2457:	0	1	0	0	0	2	0	1
2465:	0	1	2	0	2	0	1	0
2473:	1	1	1	2	0	1	2	2
2481:	1	0	1	0	0	0	0	0
2489:	0	1	1	0	1	1	0	0
2497:	1	0	1	1	2	0	2	0
2505:	0	0	1	0	0	0	0	0
2513:	0	0	0	0	0	0	0	1
2521:	0	0	0	0	0	0	0	0
2529:	1	0	1	1	0	1	0	0
2537:	1	0	4	1	0	0	1	0
2545:	1	1	0	1	0	1	0	0
2553:	0	0	0	0	0	0	0	0
2561:	0	0	0	0	1	0	0	0
2569:	0	0	0	0	1	0	1	1
2577:	1	0	1	0	1	0	1	0
2585:	0	1	0	1	0	0	0	0
2593:	1	1	3	1	0	0	1	0
2601:	0	0	1	0	0	1	0	0
2609:	0	0	2	4	22	24	42	12
2617:	5	3	0	0	1	1	2	0
2625:	1	0	1	0	0	1	0	0
2633:	1	1	0	0	1	0	1	1
2641:	0	0	0	0	0	0	0	0
2649:	1	0	0	0	0	0	0	0
2657:	1	1	0	0	0	0	0	0
2665:	0	0	0	0	0	0	1	0
2673:	0	0	0	0	0	0	2	0
2681:	0	0	0	0	0	2	0	0
2689:	0	1	1	0	0	0	0	0
2697:	1	0	0	0	1	1	0	0
2705:	0	0	0	0	0	0	0	2
2713:	0	0	0	0	0	0	0	1
2721:	1	0	0	0	0	0	1	0
2729:	0	0	0	0	0	0	0	0
2737:	2	0	1	1	0	0	0	0
2745:	0	0	1	0	1	0	0	0
2753:	0	1	0	0	0	0	0	0
2761:	0	1	2	0	0	1	0	1
2769:	0	0	0	0	0	0	0	0
2777:	0	1	0	1	1	0	0	2
2785:	0	0	1	0	0	1	0	0
2793:	1	0	1	0	2	0	0	0
2801:	0	0	0	1	1	0	0	0
2809:	0	1	2	1	1	0	0	0
2817:	1	0	0	0	0	0	0	0
2825:	0	2	0	0	0	0	0	0

2833:	0	0	0	0	0	2	0	0
2841:	1	0	0	0	0	0	0	0
2849:	0	0	0	0	0	0	0	0
2857:	2	1	0	0	0	0	0	0
2865:	0	1	1	0	0	0	0	0
2873:	0	0	0	0	0	0	0	0
2881:	0	0	0	0	0	0	0	1
2889:	0	1	0	0	1	0	0	0
2897:	0	0	0	3	0	1	0	1
2905:	0	0	0	0	0	0	0	0
2913:	0	0	0	0	1	1	1	0
2921:	0	0	0	0	0	1	0	0
2929:	0	0	0	1	0	0	1	0
2937:	0	0	0	0	0	0	0	0
2945:	0	0	0	0	0	0	1	0
2953:	0	0	1	0	0	0	0	0
2961:	1	0	1	0	0	0	0	0
2969:	0	0	0	0	0	0	0	0
2977:	1	0	0	0	0	0	0	0
2985:	0	0	0	0	1	0	1	0
2993:	0	0	0	0	0	2	0	0
3001:	0	0	0	0	0	0	1	0
3009:	0	0	0	0	1	0	0	0
3017:	2	0	1	0	0	0	0	0
3025:	0	0	1	0	0	0	0	0
3033:	0	1	0	0	0	0	0	0
3041:	0	0	1	0	1	0	0	0
3049:	0	0	0	0	0	0	0	0
3057:	0	0	0	0	0	0	1	0
3065:	0	0	0	0	0	0	0	0
3073:	1	0	0	2	1	0	2	0
3081:	0	0	0	1	0	1	0	0
3089:	0	0	0	0	0	1	1	0
3097:	0	0	0	0	0	0	0	0
3105:	0	0	0	0	0	0	0	0
3113:	0	0	0	0	0	0	0	0
3121:	0	0	0	1	0	0	0	0
3129:	1	0	0	0	0	0	0	0
3137:	0	0	0	0	0	0	0	0
3145:	0	0	0	0	1	1	0	0
3153:	0	0	0	0	1	0	0	0
3161:	0	1	1	0	0	0	0	1
3169:	0	0	0	0	0	1	0	0
3177:	0	0	0	0	0	0	1	0
3185:	2	1	0	0	1	0	0	0
3193:	0	0	0	1	0	3	0	1
3201:	0	0	0	0	0	0	0	0
3209:	0	0	0	1	0	0	0	0
3217:	0	0	0	0	0	0	0	1
3225:	1	0	0	0	2	0	0	1
3233:	0	1	0	0	0	0	0	0
3241:	0	0	0	0	1	0	0	0
3249:	0	0	0	0	0	0	0	0
3257:	0	1	0	1	0	0	1	0
3265:	0	0	0	0	0	0	0	0
3273:	0	0	0	0	0	0	0	0
3281:	2	0	0	1	0	0	1	0
3289:	0	0	0	0	0	0	0	0
3297:	0	0	0	1	0	1	0	0
3305:	0	1	0	0	0	0	0	1

3313:	0	0	0	0	0	0	0	0
3321:	0	0	1	0	0	0	1	0
3329:	0	0	0	0	0	0	0	0
3337:	0	0	0	1	0	0	0	0
3345:	0	1	0	0	0	1	0	1
3353:	0	0	0	0	0	0	0	0
3361:	0	1	0	0	0	0	0	0
3369:	0	0	1	1	0	0	1	0
3377:	1	0	0	0	0	0	0	0
3385:	0	1	0	0	0	0	1	0
3393:	0	0	0	0	1	0	0	0
3401:	0	0	0	0	0	0	0	0
3409:	0	0	1	1	0	0	1	1
3417:	0	0	0	0	0	1	0	0
3425:	0	0	0	0	0	0	0	0
3433:	1	1	0	0	0	0	1	1
3441:	0	0	0	0	0	0	2	0
3449:	0	1	1	0	0	0	1	0
3457:	0	0	0	0	0	0	0	1
3465:	1	0	2	0	0	0	0	0
3473:	0	1	0	1	0	0	0	0
3481:	1	0	1	0	0	0	0	0
3489:	0	1	0	0	0	0	0	0
3497:	0	1	0	0	1	0	0	0
3505:	0	0	1	0	0	0	0	0
3513:	0	0	0	0	0	0	0	0
3521:	0	0	0	0	0	0	0	0
3529:	0	1	0	0	0	0	0	0
3537:	0	0	0	0	0	0	0	0
3545:	0	0	0	0	0	0	0	0
3553:	0	1	0	0	0	0	0	0
3561:	0	0	0	0	0	0	0	0
3569:	0	0	0	0	1	0	1	0
3577:	0	0	0	0	1	0	0	0
3585:	0	0	0	0	0	1	1	0
3593:	1	0	2	0	0	0	2	0
3601:	0	0	0	0	0	0	1	0
3609:	1	0	0	0	0	0	0	0
3617:	0	0	1	0	0	0	1	0
3625:	1	0	0	0	0	0	1	0
3633:	0	1	0	0	0	0	0	0
3641:	0	0	0	0	0	1	0	0
3649:	0	0	0	0	0	0	0	0
3657:	0	0	0	0	0	0	0	0
3665:	0	0	0	0	0	0	0	0
3673:	0	0	1	0	0	1	0	1
3681:	0	0	0	0	0	0	1	0
3689:	0	0	0	0	0	0	1	0
3697:	1	0	0	0	1	0	0	0
3705:	0	0	0	0	0	0	0	0
3713:	1	0	0	0	0	0	0	0
3721:	0	0	0	0	0	0	0	0
3729:	0	0	0	0	0	1	0	1
3737:	0	0	0	0	0	0	0	0
3745:	0	0	1	0	0	0	0	0
3753:	0	0	0	0	0	0	0	0
3761:	0	0	0	0	0	0	0	0
3769:	0	0	0	0	0	0	0	0
3777:	1	0	0	0	0	0	0	1
3785:	0	0	0	1	0	0	0	0

3793:	1	0	0	0	0	0	0	0
3801:	0	0	0	0	0	0	0	0
3809:	0	0	0	1	0	0	0	0
3817:	0	0	0	0	1	0	0	0
3825:	0	0	0	0	0	1	0	0
3833:	0	0	0	0	0	0	1	0
3841:	0	0	0	0	0	0	0	0
3849:	0	0	0	0	0	0	0	0
3857:	1	0	0	0	0	0	0	0
3865:	0	0	0	0	0	0	0	0
3873:	0	1	0	0	0	0	1	0
3881:	0	0	0	0	0	0	0	0
3889:	0	1	0	1	1	0	0	1
3897:	0	0	0	0	0	0	0	0
3905:	0	0	1	0	0	0	0	1
3913:	0	0	0	0	0	0	0	0
3921:	0	1	0	0	0	0	0	0
3929:	0	0	0	0	0	0	0	0
3937:	0	0	0	0	0	0	0	0
3945:	0	2	0	0	0	0	2	1
3953:	0	0	0	0	0	0	0	0
3961:	0	0	0	0	0	0	0	0
3969:	0	0	0	0	0	0	1	0
3977:	0	0	0	1	0	0	0	0
3985:	0	0	0	0	0	0	0	0
3993:	0	0	0	0	0	0	1	1
4001:	0	0	0	0	0	0	0	0
4009:	0	0	0	0	0	0	0	0
4017:	0	0	0	0	1	1	0	0
4025:	0	0	0	0	0	0	0	0
4033:	1	0	1	0	0	0	0	0
4041:	0	0	0	0	0	0	0	0
4049:	0	1	0	0	0	0	0	0
4057:	0	0	0	1	0	0	0	0
4065:	0	0	0	0	1	0	0	0
4073:	0	0	0	0	1	0	0	0
4081:	0	0	0	0	0	0	0	0
4089:	0	0	1	0	0	0	0	0

Sample ID : 1111068-06

Acquisition date : 11-DEC-2011 13:24:21

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12/11/11

VAX/VMS Peak Search Report Generated 11-DEC-2011 14:24:53.10

Configuration : DKA100:[GAMMA.SCUSR.ARCHIVE]SMP_111106806_GE3_GAS1102_172282.
 Analyses by : PEAK V16.9 ENBACK V1.6 PEAKEFF V2.2
 Client ID : BKGD-S-31-111107
 Deposition Date :
 Sample Date : 7-NOV-2011 00:00:00. Acquisition date : 11-DEC-2011 13:24:21
 Sample ID : 1111068-06 Sample Quantity : 3.96310E+02 GRAM
 Sample type : SOIL Sample Geometry : 0
 Detector name : GE3 Detector Geometry: GAS-1102
 Elapsed live time: 0 01:00:00.00 Elapsed real time: 0 01:00:16.29 0.5%
 Start channel : 5 End channel : 4096
 Sensitivity : 2.40000 Gaussian : 15.00000
 Critical level : Yes

Post-NID Peak Search Report

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides
0	46.77*	170	695	1.31	47.05	43	8	57.1		PB-210
2	74.98*	430	565	1.49	75.26	72	10	18.7	2.00E+01	AM-243
2	77.55*	845	504	1.49	77.84	72	10	11.0		
0	88.44	329	847	1.20	88.72	86	6	30.1		SN-126 CD-109
0	93.53*	194	731	1.78	93.82	91	6	49.2		
0	99.42	60	440	1.71	99.70	98	5	106.9		
0	130.07	103	501	1.74	130.36	127	7	75.5		
1	186.59*	173	232	1.53	186.88	183	15	32.4	2.39E+00	RA-226
1	189.85	51	230	1.53	190.14	183	15	96.1		
0	209.68	102	346	1.34	209.97	206	8	66.1		
3	239.13*	978	178	1.57	239.43	235	12	7.7	6.15E+00	PB-212
3	242.30*	195	172	1.70	242.59	235	12	33.0		RA-224
0	259.13	44	228	1.81	259.42	256	8	122.0		
0	278.39	61	167	1.20	278.69	276	6	72.4		HG-203
0	285.46	74	247	3.34	285.75	282	10	83.0		
1	295.69*	299	92	1.44	295.99	292	18	14.7	2.52E+00	PB-214
1	300.94	74	106	1.82	301.23	292	18	49.6		PB-212
0	312.52	54	166	4.83	312.82	309	8	87.3		PA-233
1	335.85	21	75	1.69	336.15	335	13	109.0	6.93E+00	
1	338.85*	185	116	1.69	339.15	335	13	22.2		AC-228
0	352.31*	545	226	1.46	352.61	348	10	13.5		PB-214
0	464.18	67	145	1.88	464.48	459	11	74.0		
0	478.91	57	105	1.77	479.22	474	11	74.9		BE-7
0	511.54*	102	135	2.09	511.85	507	12	53.2		
1	580.52	21	45	1.88	580.83	579	16	92.6	2.15E+00	
1	583.86*	292	50	1.76	584.17	579	16	13.7		TL-208
0	609.78*	334	89	1.38	610.09	607	7	14.6		BI-214
0	631.54	27	60	2.14	631.86	627	9	110.5		
0	661.79*	30	74	1.97	662.10	659	7	102.6		CS-137
0	677.18	21	41	1.66	677.50	673	7	109.8		
0	727.70	64	70	1.52	728.03	723	8	51.9		BI-212
0	755.69	26	30	1.89	756.02	753	6	77.4		
0	795.34	31	52	1.66	795.66	793	7	84.4		
0	861.99	46	57	7.36	862.32	857	12	72.4		
0	911.95	188	40	1.72	912.28	908	9	19.0		AC-228

AG
12/12/11

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides
0	934.38	29	56	1.88	934.72	929	11105.6			
1	959.86	12	6	2.12	960.19	959	19	62.7	2.73E+00	
1	965.47	50	15	2.13	965.81	959	19	39.4		
1	969.56	125	10	2.13	969.89	959	19	20.1		AC-228
2	1008.07	15	25	2.36	1008.41	999	14128.2		6.14E-01	
0	1096.92	43	44	7.09	1097.26	1090	15	74.9		
0	1120.78*	99	49	2.09	1121.12	1115	11	34.5		BI-214
0	1239.15	38	52	2.04	1239.50	1234	10	79.5		
0	1261.73	19	16	3.00	1262.08	1259	7	83.6		
0	1281.07	19	29	1.34	1281.43	1277		8112.0		
0	1379.62	25	24	2.07	1379.99	1374	12	91.0		
0	1461.48*	510	24	2.17	1461.84	1457	11	9.7		K-40
0	1478.75	21	5	1.64	1479.12	1474	10	58.0		
0	1510.07	9	8	3.87	1510.44	1506		8127.7		
4	1588.78	24	3	3.23	1589.16	1583	17	60.1	1.80E+00	
4	1592.91	13	1	2.67	1593.28	1583	17	96.0		
0	1603.09	10	2	3.68	1603.47	1601	6	74.0		
0	1711.18	8	2	2.06	1711.56	1707	9	96.4		
0	1765.16	55	2	2.83	1765.54	1761	8	28.5		BI-214
0	1956.08	8	1	2.65	1956.48	1952	7	91.3		
0	2103.72	13	6	1.87	2104.12	2099	8	86.2		
0	2183.37	9	0	1.66	2183.78	2180	8	66.7		
0	2205.70	16	7	1.85	2206.12	2201	9	75.9		BI-214
0	2302.43	8	4	1.61	2302.85	2300		7108.7		
0	2336.00	5	3	2.85	2336.42	2333		6131.6		
0	2615.40*	89	0	2.67	2615.84	2611	9	21.6		TL-208

Total number of lines in spectrum 61
 Number of unidentified lines 24
 Number of lines tentatively identified by NID 37 60.66%

Nuclide Type : ACTIVATION

Nuclide	Hlife	Decay	Wtd Mean		Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
			Uncorrected pCi/GRAM	Decay Corr pCi/GRAM			
BE-7	53.44D	1.57	1.072E+00	1.679E+00	1.271E+00	75.70	
HG-203	46.60D	1.67	9.629E-02	1.610E-01	1.175E-01	72.95	
AM-243	7380.00Y	1.00	5.177E-01	5.177E-01	1.162E-01	22.44	
Total Activity :			1.686E+00	2.358E+00			

Nuclide Type : NATURAL

Nuclide	Hlife	Decay	Wtd Mean		Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
			Uncorrected pCi/GRAM	Decay Corr pCi/GRAM			
K-40	1.28E+09Y	1.00	2.389E+01	2.389E+01	0.329E+01	13.78	
TL-208	1.41E+10Y	1.00	1.902E+00	1.902E+00	0.273E+00	14.35	
PB-210	22.26Y	1.00	4.541E+00	4.554E+00	2.647E+00	58.12	
BI-212	1.41E+10Y	1.00	1.562E+00	1.562E+00	0.826E+00	52.89	
PB-212	1.41E+10Y	1.00	2.400E+00	2.400E+00	0.292E+00	12.16	
BI-214	1602.00Y	1.00	1.881E+00	1.881E+00	0.265E+00	14.08	
PB-214	1602.00Y	1.00	2.079E+00	2.079E+00	0.251E+00	12.07	
RA-224	1.41E+10Y	1.00	5.394E+00	5.394E+00	1.857E+00	34.42	
RA-226	1602.00Y	1.00	4.875E+00	4.875E+00	9.071E+00	186.08	
AC-228	1.41E+10Y	1.00	2.477E+00	2.477E+00	0.321E+00	12.97	
PA-233	27.00D	2.43	1.867E-01	4.536E-01	4.094E-01	90.27	
Total Activity :			5.119E+01	5.147E+01			

Nuclide Type : FISSION

Nuclide	Hlife	Decay	Wtd Mean		Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
			Uncorrected pCi/GRAM	Decay Corr pCi/GRAM			
CD-109	464.00D	1.05	6.769E+00	7.128E+00	2.450E+00	34.38	
SN-126	1.00E+05Y	1.00	6.810E-01	6.810E-01	2.303E-01	33.81	
CS-137	30.17Y	1.00	9.375E-02	9.395E-02	9.689E-02	103.13	
Total Activity :			7.544E+00	7.903E+00			

Grand Total Activity : 6.042E+01 6.173E+01

Flags: "K" = Keyline not found
 "E" = Manually edited

"M" = Manually accepted
 "A" = Nuclide specific abn. limit

Nuclide Type: ACTIVATION

Nuclide	Energy	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error	Status
BE-7	477.59	10.42*	9.671E-01	1.072E+00	1.679E+00	75.70	OK
Final Mean for 1 Valid Peaks = 1.679E+00+/- 1.271E+00 (75.70%)							
HG-203	279.19	77.30*	1.548E+00	9.629E-02	1.610E-01	72.95	OK
Final Mean for 1 Valid Peaks = 1.610E-01+/- 1.175E-01 (72.95%)							
AM-243	74.67	66.00*	2.383E+00	5.177E-01	5.177E-01	22.44	OK
Final Mean for 1 Valid Peaks = 5.177E-01+/- 1.162E-01 (22.44%)							

Nuclide Type: NATURAL

Nuclide	Energy	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error	Status
K-40	1460.81	10.67*	3.789E-01	2.389E+01	2.389E+01	13.78	OK
Final Mean for 1 Valid Peaks = 2.389E+01+/- 3.291E+00 (13.78%)							
TL-208	583.14	30.22*	8.029E-01	2.281E+00	2.281E+00	17.41	OK
	860.37	4.48	5.645E-01	-----	Line Not Found	-----	Absent
	2614.66	35.85	3.019E-01	1.562E+00	1.562E+00	24.07	OK
Final Mean for 2 Valid Peaks = 1.902E+00+/- 2.729E-01 (14.35%)							
PB-210	46.50	4.05*	1.750E+00	4.541E+00	4.554E+00	58.12	OK
Final Mean for 1 Valid Peaks = 4.554E+00+/- 2.647E+00 (58.12%)							
BI-212	727.17	11.80*	6.552E-01	1.562E+00	1.562E+00	52.89	OK
	1620.62	2.75	3.568E-01	-----	Line Not Found	-----	Absent
Final Mean for 1 Valid Peaks = 1.562E+00+/- 8.263E-01 (52.89%)							
PB-212	238.63	44.60*	1.744E+00	2.382E+00	2.382E+00	12.52	OK
	300.09	3.41	1.461E+00	2.823E+00	2.823E+00	50.48	OK
Final Mean for 2 Valid Peaks = 2.400E+00+/- 2.919E-01 (12.16%)							
BI-214	609.31	46.30*	7.707E-01	1.775E+00	1.775E+00	17.99	OK
	1120.29	15.10	4.552E-01	2.723E+00	2.723E+00	36.08	OK
	1764.49	15.80	3.416E-01	1.923E+00	1.923E+00	30.15	OK
	2204.22	4.98	3.132E-01	1.978E+00	1.978E+00	76.61	OK
Final Mean for 4 Valid Peaks = 1.881E+00+/- 2.649E-01 (14.08%)							
PB-214	295.21	19.19	1.480E+00	1.991E+00	1.991E+00	17.39	OK

Nuclide Type: NATURAL

Nuclide	Energy	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error	Status
	351.92	37.19*	1.276E+00	2.177E+00	2.177E+00	16.74	OK
Final Mean for 2 Valid Peaks = 2.079E+00+/- 2.510E-01 (12.07%)							
RA-224	240.98	3.95*	1.732E+00	5.394E+00	5.394E+00	34.42	OK
Final Mean for 1 Valid Peaks = 5.394E+00+/- 1.857E+00 (34.42%)							
RA-226	186.21	3.28*	2.048E+00	4.875E+00	4.875E+00	186.08	OK
Final Mean for 1 Valid Peaks = 4.875E+00+/- 9.071E+00 (186.08%)							
AC-228	338.32	11.40	1.320E+00	2.326E+00	2.326E+00	24.24	OK
	911.07	27.70*	5.376E-01	2.390E+00	2.390E+00	21.06	OK
	969.11	16.60	5.106E-01	2.794E+00	2.794E+00	22.23	OK
Final Mean for 3 Valid Peaks = 2.477E+00+/- 3.213E-01 (12.97%)							
PA-233	311.98	38.60*	1.414E+00	1.867E-01	4.536E-01	90.27	OK
Final Mean for 1 Valid Peaks = 4.536E-01+/- 4.094E-01 (90.27%)							

Nuclide Type: FISSION

Nuclide	Energy	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error	Status
CD-109	88.03	3.72*	2.473E+00	6.769E+00	7.128E+00	34.38	OK
Final Mean for 1 Valid Peaks = 7.128E+00+/- 2.450E+00 (34.38%)							
SN-126	87.57	37.00*	2.471E+00	6.810E-01	6.810E-01	33.81	OK
Final Mean for 1 Valid Peaks = 6.810E-01+/- 2.303E-01 (33.81%)							
CS-137	661.65	85.12*	7.142E-01	9.375E-02	9.395E-02	103.13	OK
Final Mean for 1 Valid Peaks = 9.395E-02+/- 9.689E-02 (103.13%)							

Flag: "*" = Keyline

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	1.679E+00	1.271E+00	1.154E+00	1.148E-01	1.455
K-40	2.389E+01	3.291E+00	9.107E-01	8.167E-02	26.231
CD-109	7.128E+00	2.450E+00	2.391E+00	3.855E-01	2.981
SN-126	6.810E-01	2.303E-01	2.284E-01	3.399E-02	2.982
CS-137	9.395E-02	9.689E-02	1.305E-01	1.228E-02	0.720
HG-203	1.610E-01	1.175E-01	1.370E-01	1.146E-02	1.176
TL-208	1.902E+00	2.729E-01	3.200E-01	3.169E-02	5.943
PB-210	4.554E+00	2.647E+00	2.426E+00	2.443E-01	1.878
BI-212	1.562E+00	8.263E-01	8.832E-01	8.166E-02	1.769
PB-212	2.400E+00	2.919E-01	1.565E-01	1.418E-02	15.333
BI-214	1.881E+00	2.649E-01	2.080E-01	2.034E-02	9.044
PB-214	2.079E+00	2.510E-01	1.984E-01	1.794E-02	10.479
RA-224	5.394E+00	1.857E+00	1.781E+00	1.605E-01	3.028
RA-226	4.875E+00	9.071E+00	1.953E+00	3.579E+00	2.496
AC-228	2.477E+00	3.213E-01	4.085E-01	3.318E-02	6.063
PA-233	4.536E-01	4.094E-01	4.204E-01	9.429E-02	1.079
AM-243	5.177E-01	1.162E-01	1.274E-01	1.495E-02	4.063

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NA-22	-6.859E-03		7.406E-02	1.184E-01	1.085E-02	-0.058
AL-26	3.293E-02		3.259E-02	8.444E-02	7.554E-03	0.390
TI-44	-1.953E-01		6.795E-02	9.251E-02	9.394E-03	-2.111
SC-46	-4.446E-03		7.936E-02	1.439E-01	1.166E-02	-0.031
V-48	-5.004E-02		2.814E-01	5.018E-01	4.371E-02	-0.100
CR-51	9.011E-01		1.140E+00	1.867E+00	1.701E-01	0.483
MN-54	-6.327E-03		6.962E-02	1.250E-01	1.076E-02	-0.051
CO-56	-5.498E-02		8.138E-02	1.381E-01	1.175E-02	-0.398
CO-57	-4.726E-02		5.325E-02	8.726E-02	1.014E-02	-0.542
CO-58	-2.243E-02		8.508E-02	1.510E-01	1.331E-02	-0.149
FE-59	4.778E-02		2.015E-01	3.744E-01	3.836E-02	0.128
CO-60	-2.258E-02		7.647E-02	1.326E-01	1.348E-02	-0.170
ZN-65	1.756E-02		1.689E-01	2.804E-01	2.733E-02	0.063
SE-75	6.507E-03		9.023E-02	1.408E-01	1.204E-02	0.046
RB-82	-7.897E-01		1.235E+00	2.110E+00	1.902E-01	-0.374
RB-83	6.646E-02		1.508E-01	2.596E-01	4.270E-02	0.256
KR-85	3.547E+01		1.458E+01	2.875E+01	2.879E+00	1.234
SR-85	2.231E-01		9.167E-02	1.808E-01	1.811E-02	1.234
Y-88	9.281E-03		6.144E-02	1.205E-01	1.078E-02	0.077
NB-93M	5.605E-01		4.106E+00	7.313E+00	5.408E+00	0.077
NB-94	1.985E-02		5.971E-02	1.032E-01	8.549E-03	0.192
NB-95	6.742E-02		1.344E-01	2.511E-01	2.280E-02	0.269
ZR-95	2.069E-01	+	1.617E-01	2.734E-01	2.720E-02	0.757
RU-103	1.700E-02		9.767E-02	1.657E-01	2.493E-02	0.103
RU-106	-3.205E-01		6.371E-01	9.903E-01	1.394E-01	-0.324
AG-108M	-1.138E-02		7.333E-02	1.178E-01	1.091E-02	-0.097

----- Non-Identified Nuclides -----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AG-110M	-7.759E-03		7.503E-02	1.216E-01	1.147E-02	-0.064
SN-113	-2.494E-02		9.348E-02	1.523E-01	1.479E-02	-0.164
TE123M	-4.555E-02		5.596E-02	9.120E-02	9.303E-03	-0.499
SB-124	-2.719E-02		9.348E-02	1.491E-01	1.463E-02	-0.182
I-125	1.317E+00		1.642E+00	2.955E+00	4.142E-01	0.446
SB-125	4.640E-02		1.708E-01	2.903E-01	2.866E-02	0.160
SB-126	1.270E-01		8.095E-01	1.351E+00	1.252E-01	0.094
I-129	8.541E-03		1.605E-01	2.846E-01	5.292E-02	0.030
I-131	-1.243E-02		1.083E+00	1.810E+00	1.662E-01	-0.007
BA-133	3.325E-02		8.695E-02	1.375E-01	1.858E-02	0.242
CS-134	-4.151E-02		6.354E-02	9.726E-02	9.554E-03	-0.427
CS-135	1.166E-02		2.707E-01	4.551E-01	3.825E-02	0.026
CS-136	1.041E-01		5.136E-01	9.502E-01	9.002E-02	0.110
LA-138	6.355E-03		9.319E-02	1.726E-01	1.499E-02	0.037
CE-139	-3.930E-03		5.765E-02	9.723E-02	9.657E-03	-0.040
BA-140	8.769E-01		1.311E+00	2.452E+00	8.221E-01	0.358
LA-140	4.976E-01		2.718E-01	7.191E-01	6.387E-02	0.692
CE-141	5.186E-02		1.755E-01	3.006E-01	8.053E-02	0.173
CE-144	1.357E-01		3.981E-01	6.398E-01	7.140E-02	0.212
PM-144	6.207E-02		6.351E-02	1.234E-01	1.154E-02	0.503
PM-145	7.701E-02		3.179E-01	5.573E-01	3.671E-01	0.138
PM-146	-1.009E-02		1.404E-01	2.127E-01	2.097E-02	-0.047
ND-147	-7.731E-02		3.210E+00	5.887E+00	5.897E-01	-0.013
EU-152	3.947E-02		4.531E-01	8.315E-01	9.089E-02	0.047
GD-153	-1.730E-01		2.310E-01	3.503E-01	4.667E-02	-0.494
EU-154	-1.897E-02		2.048E-01	3.274E-01	3.001E-02	-0.058
EU-155	5.890E-01		2.125E-01	3.342E-01	4.883E-02	1.763
EU-156	-6.199E-01		2.714E+00	4.837E+00	1.108E+00	-0.128
HO-166M	4.071E-02		1.047E-01	1.969E-01	1.831E-02	0.207
HF-172	3.829E-02		4.159E-01	6.583E-01	7.542E-02	0.058
LU-172	2.454E+00		3.985E+00	7.633E+00	7.306E-01	0.322
LU-173	4.144E-01		2.461E-01	4.178E-01	3.468E-02	0.992
HF-175	-1.179E-02		8.608E-02	1.307E-01	1.169E-02	-0.090
LU-176	2.884E-02		4.940E-02	7.193E-02	6.102E-03	0.401
TA-182	1.453E+00	+	5.244E-01	7.928E-01	7.753E-02	1.833
IR-192	2.745E-02		1.543E-01	2.404E-01	2.384E-02	0.114
BI-207	-3.277E-02		5.002E-02	8.697E-02	8.654E-03	-0.377
BI-210M	8.216E-03		1.003E-01	1.564E-01	1.338E-02	0.053
PB-211	1.333E+00		1.681E+00	2.956E+00	2.828E-01	0.451
RN-219	-3.447E-01		7.484E-01	1.204E+00	1.149E-01	-0.286
RA-223	-4.301E-01		1.138E+00	1.853E+00	1.613E-01	-0.232
RA-225	1.051E+00		1.063E+00	1.800E+00	2.148E-01	0.584
TH-227	-2.108E-02		4.206E-01	6.495E-01	5.913E-02	-0.032
TH-230	-5.038E+01		1.734E+01	2.355E+01	2.380E+00	-2.140
PA-231	4.629E+00		2.221E+00	3.592E+00	3.027E-01	1.289
TH-231	4.702E-01		8.430E-01	1.509E+00	3.737E-01	0.311
PA-234	4.009E-01	+	3.064E-01	3.448E-01	3.878E-02	1.163
PA-234M	4.564E+00		8.716E+00	1.503E+01	1.330E+00	0.304

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-234	2.179E+00		1.531E+00	2.745E+00	2.498E-01	0.794
U-235	1.298E-01		3.920E-01	6.727E-01	1.256E-01	0.193
NP-237	1.425E+00		5.142E-01	8.087E-01	1.182E-01	1.762
AM-241	-3.274E-01		1.628E-01	2.606E-01	2.146E-02	-1.256
CM-243	5.305E-01	+	3.869E-01	5.706E-01	4.651E-02	0.930

Total number of lines in spectrum 61
 Number of unidentified lines 24
 Number of lines tentatively identified by NID 37 60.66%

Nuclide Type : ACTIVATION

Nuclide	Hlife	Decay	Wtd Mean	Wtd Mean	Decay Corr 2-Sigma Error	2-Sigma	Flags
			Uncorrected pCi/GRAM	Decay Corr pCi/GRAM			
BE-7	53.44D	1.57	1.072E+00	1.679E+00	1.271E+00	75.70	
HG-203	46.60D	1.67	9.629E-02	1.610E-01	1.175E-01	72.95	
AM-243	7380.00Y	1.00	5.177E-01	5.177E-01	1.162E-01	22.44	
Total Activity :			1.686E+00	2.358E+00			

Nuclide Type : NATURAL

Nuclide	Hlife	Decay	Wtd Mean	Wtd Mean	Decay Corr 2-Sigma Error	2-Sigma	Flags
			Uncorrected pCi/GRAM	Decay Corr pCi/GRAM			
K-40	1.28E+09Y	1.00	2.389E+01	2.389E+01	0.329E+01	13.78	
TL-208	1.41E+10Y	1.00	1.902E+00	1.902E+00	0.273E+00	14.35	
PB-210	22.26Y	1.00	4.541E+00	4.554E+00	2.647E+00	58.12	
BI-212	1.41E+10Y	1.00	1.562E+00	1.562E+00	0.826E+00	52.89	
PB-212	1.41E+10Y	1.00	2.400E+00	2.400E+00	0.292E+00	12.16	
BI-214	1602.00Y	1.00	1.881E+00	1.881E+00	0.265E+00	14.08	
PB-214	1602.00Y	1.00	2.079E+00	2.079E+00	0.251E+00	12.07	
RA-224	1.41E+10Y	1.00	5.394E+00	5.394E+00	1.857E+00	34.42	
RA-226	1602.00Y	1.00	4.875E+00	4.875E+00	9.071E+00	186.08	
AC-228	1.41E+10Y	1.00	2.477E+00	2.477E+00	0.321E+00	12.97	
PA-233	27.00D	2.43	1.867E-01	4.536E-01	4.094E-01	90.27	
Total Activity :			5.119E+01	5.147E+01			

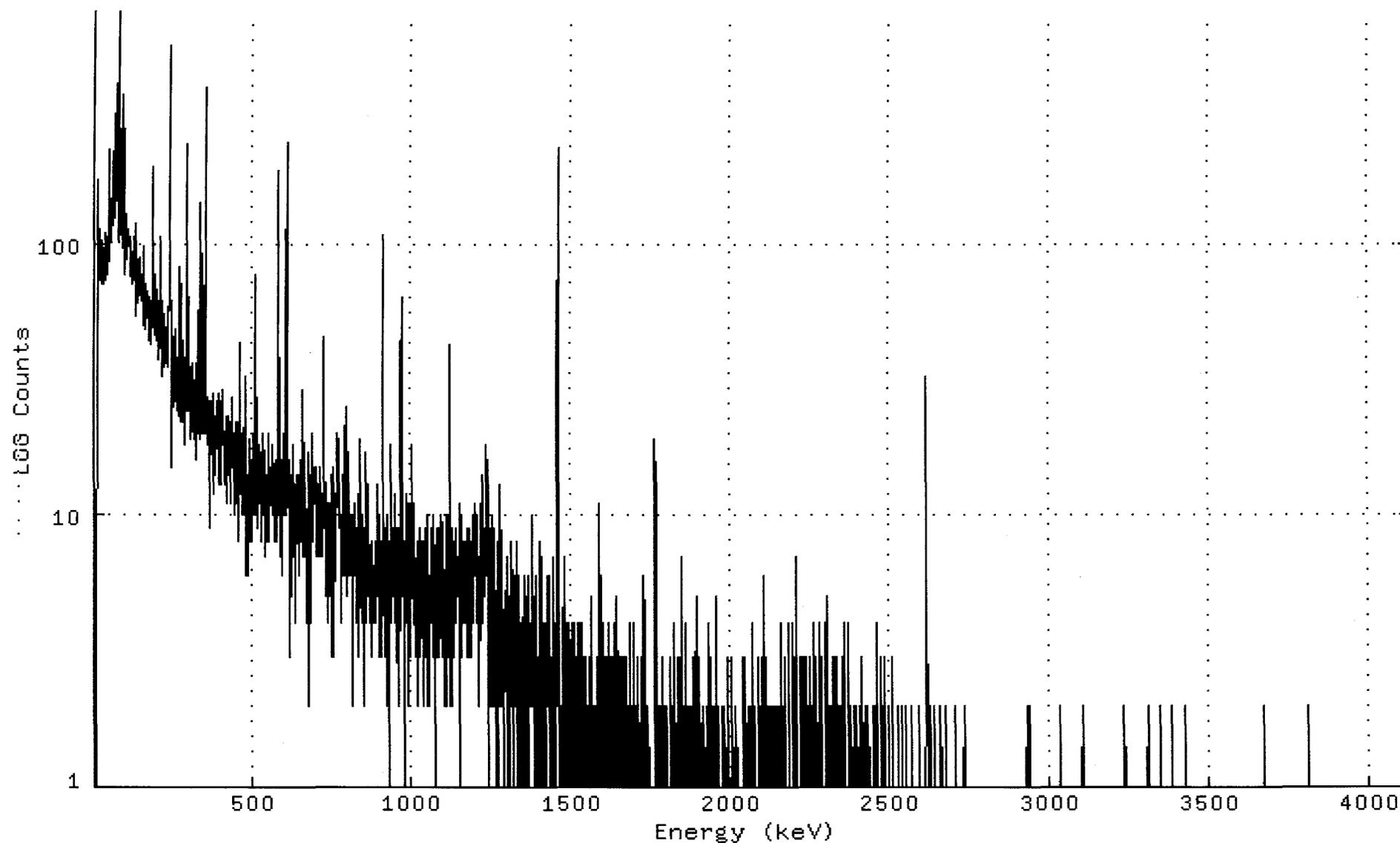
Nuclide Type : FISSION

Nuclide	Hlife	Decay	Wtd Mean	Wtd Mean	Decay Corr 2-Sigma Error	2-Sigma	Flags
			Uncorrected pCi/GRAM	Decay Corr pCi/GRAM			
CD-109	464.00D	1.05	6.769E+00	7.128E+00	2.450E+00	34.38	
SN-126	1.00E+05Y	1.00	6.810E-01	6.810E-01	2.303E-01	33.81	
CS-137	30.17Y	1.00	9.375E-02	9.395E-02	9.689E-02	103.13	
Total Activity :			7.544E+00	7.903E+00			

Grand Total Activity : 6.042E+01 6.173E+01

Flags: "K" = Keyline not found "M" = Manually accepted
 "E" = Manually edited "A" = Nuclide specific abn. limit

Spectrum : DKA100:[GAMMA,SCUSR,ARCHIVE]SMP_111106806_GE3_GAS1102_172282.CNF;1
Title :
Sample Title: BKGD-S-31-111107
Start Time: 11-DEC-2011 13:24 Sample Time: 7-NOV-2011 00:00: Energy Offset: -2.78447E-01
Real Time : 0 01:00:16.29 Sample ID : 1111068-06 Energy Slope : 9.99940E-01
Live Time : 0 01:00:00.00 Sample Type: SOIL Energy Quad : 0.00000E+00



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Channel Contents for DKA100:[GAMMA.SCUSR.ARCHIVE] SMP_111106806_GE3_GAS1102_1722

Channel

1:	0	0	0	0	0	0	0	0
9:	0	152	170	146	129	90	83	110
17:	112	80	84	86	73	70	76	80
25:	94	102	76	87	87	95	70	82
33:	76	79	88	109	85	73	93	100
41:	89	86	77	92	106	98	220	135
49:	95	97	86	144	101	124	115	119
57:	109	129	115	154	145	115	156	300
65:	134	131	124	137	139	143	153	148
73:	149	146	376	395	325	718	162	138
81:	101	130	107	158	173	110	196	349
89:	152	183	186	96	277	251	115	90
97:	77	77	103	128	105	87	104	95
105:	103	112	100	97	101	101	99	105
113:	95	75	84	106	84	93	89	71
121:	81	81	91	90	105	102	73	91
129:	96	118	87	85	54	67	78	60
137:	61	66	61	87	66	64	88	82
145:	84	73	74	68	67	65	63	64
153:	61	97	97	50	66	67	57	53
161:	48	56	62	70	57	53	66	59
169:	58	56	66	60	58	53	57	52
177:	44	61	55	57	53	42	52	58
185:	49	124	189	55	61	76	58	57
193:	55	46	46	46	44	47	55	67
201:	49	53	50	55	50	37	61	44
209:	45	105	68	47	41	45	46	32
217:	61	45	44	35	41	41	50	55
225:	40	41	36	49	39	41	38	58
233:	47	39	35	46	45	68	533	452
241:	76	111	135	28	33	28	40	36
249:	15	44	33	33	45	27	25	27
257:	30	31	38	48	36	38	24	37
265:	32	34	37	28	32	37	81	51
273:	23	42	31	33	22	70	43	32
281:	28	22	31	44	39	37	33	34
289:	34	29	18	31	24	28	66	230
297:	64	24	28	42	63	31	36	34
305:	26	21	32	22	19	21	36	31
313:	33	27	34	19	23	23	31	28
321:	25	36	28	18	29	16	27	29
329:	56	20	28	26	34	27	24	38
337:	19	27	141	59	24	26	20	29
345:	29	26	21	20	27	30	26	186
353:	374	49	28	20	22	27	18	21
361:	24	22	23	26	22	20	9	23
369:	16	17	23	26	23	19	23	27
377:	22	28	16	12	22	14	18	15
385:	17	23	18	26	20	26	19	25
393:	20	15	28	17	18	21	13	26
401:	13	19	23	15	18	29	28	21
409:	21	18	28	15	15	18	19	20
417:	13	23	11	15	11	19	21	18
425:	14	23	22	21	18	11	21	15

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441:	15	19	16	20	10	15	19	11
449:	22	18	17	14	21	16	12	22
457:	8	17	11	14	16	12	32	43
465:	22	15	20	17	10	15	19	17
473:	12	10	12	21	13	26	32	8
481:	6	17	11	6	11	10	10	12
489:	14	14	15	19	11	8	10	13
497:	16	15	8	12	15	13	16	13
505:	20	12	10	16	21	10	65	76
513:	33	22	15	21	9	10	13	15
521:	16	18	12	15	11	11	8	11
529:	17	15	9	13	11	15	10	18
537:	20	15	11	11	10	15	7	13
545:	10	14	8	13	9	20	12	10
553:	12	8	9	13	11	13	14	15
561:	13	10	12	14	11	18	12	13
569:	11	8	8	12	15	16	8	12
577:	14	14	9	14	23	10	48	184
585:	73	20	9	7	10	9	11	7
593:	11	6	11	16	12	20	14	14
601:	17	13	10	10	13	11	10	14
609:	54	234	90	17	14	15	14	8
617:	16	12	14	3	14	14	11	9
625:	5	7	8	8	9	7	15	18
633:	11	7	4	8	13	13	5	12
641:	11	10	13	14	10	6	12	6
649:	8	10	14	13	16	8	16	13
657:	15	11	7	11	13	28	29	12
665:	7	17	14	10	11	10	9	8
673:	10	4	10	9	17	10	2	5
681:	11	8	12	14	4	11	12	15
689:	20	13	8	11	10	14	11	13
697:	12	15	13	10	8	7	11	15
705:	13	8	8	13	11	11	7	9
713:	15	10	11	7	7	11	9	11
721:	10	12	7	11	10	11	20	45
729:	22	8	8	11	5	11	10	4
737:	4	7	11	5	7	9	11	11
745:	5	9	9	9	6	14	3	4
753:	10	6	7	15	15	3	4	8
761:	10	7	12	11	7	17	11	16
769:	20	19	11	10	19	11	11	9
777:	10	9	4	9	7	10	10	7
785:	6	12	14	10	8	9	19	6
793:	10	9	18	25	8	8	5	9
801:	6	14	6	9	14	17	10	8
809:	8	6	10	6	10	7	2	7
817:	3	4	9	11	6	7	8	8
825:	8	6	9	4	5	6	4	10
833:	11	3	7	12	11	9	8	13
841:	19	11	5	4	5	4	6	10
849:	7	9	8	2	7	9	8	5
857:	4	7	7	12	17	10	8	6
865:	10	5	12	5	5	7	7	4
873:	7	8	6	7	3	5	7	6
881:	4	4	6	6	5	6	6	4
889:	8	6	7	9	13	6	5	9
897:	10	6	3	5	9	10	5	8
905:	8	7	7	3	7	7	25	107

913:	62	8	6	3	5	9	6	3
921:	7	4	6	2	6	8	10	0
929:	7	5	8	5	5	7	14	18
937:	7	5	4	9	7	5	6	5
945:	6	7	4	5	12	9	9	3
953:	9	5	4	8	4	2	4	9
961:	3	6	2	7	23	27	12	8
969:	30	63	21	6	5	7	6	5
977:	1	1	4	8	4	5	4	4
985:	12	4	10	5	9	11	2	7
993:	4	11	11	5	3	7	4	6
1001:	6	18	13	6	6	4	5	11
1009:	7	5	5	3	3	6	5	3
1017:	6	8	4	2	2	7	4	5
1025:	5	6	9	5	3	4	7	8
1033:	6	6	4	7	5	8	3	2
1041:	6	5	8	8	4	9	3	7
1049:	6	10	2	4	7	2	2	5
1057:	6	4	6	6	4	6	7	9
1065:	7	5	7	3	6	6	10	6
1073:	5	4	6	0	4	6	3	4
1081:	9	6	8	4	4	8	9	5
1089:	3	4	5	6	6	4	10	9
1097:	8	3	6	5	8	5	6	2
1105:	3	6	5	6	8	6	2	10
1113:	3	4	3	6	10	9	9	11
1121:	40	42	12	8	2	9	6	6
1129:	4	2	7	3	7	6	8	5
1137:	4	4	9	8	6	5	6	6
1145:	7	6	6	7	5	6	7	1
1153:	4	6	11	8	5	10	3	3
1161:	6	6	6	4	8	7	7	8
1169:	8	6	6	4	6	9	4	6
1177:	5	9	3	6	6	9	3	6
1185:	7	8	6	5	6	3	6	7
1193:	10	8	4	8	7	7	8	7
1201:	9	6	11	7	4	10	7	5
1209:	9	4	7	5	5	3	2	6
1217:	6	7	11	5	8	5	5	7
1225:	4	14	7	7	5	6	9	6
1233:	7	8	11	7	6	9	18	14
1241:	6	10	1	6	5	9	7	7
1249:	9	2	6	9	7	4	2	4
1257:	10	2	2	4	9	8	7	4
1265:	1	4	2	5	3	8	1	2
1273:	1	5	6	4	5	2	7	6
1281:	13	6	5	4	2	6	5	4
1289:	1	4	3	1	0	5	5	5
1297:	3	5	4	7	1	3	6	2
1305:	2	2	5	3	3	1	5	4
1313:	5	5	2	6	8	5	1	3
1321:	5	3	0	4	5	6	2	4
1329:	5	2	1	1	2	8	3	1
1337:	4	3	4	6	2	0	4	0
1345:	4	3	1	3	3	1	4	4
1353:	3	6	3	4	0	3	3	3
1361:	2	1	1	4	5	3	3	1
1369:	2	6	2	3	3	4	4	3
1377:	2	8	10	5	4	4	4	1
1385:	0	2	4	5	2	2	6	6

1393:	1	1	3	3	2	2	3	1
1401:	3	6	8	2	4	1	4	6
1409:	1	7	3	4	1	0	4	1
1417:	2	1	1	4	2	2	0	3
1425:	3	3	3	2	6	3	4	3
1433:	6	5	2	1	3	3	2	3
1441:	3	1	7	3	6	2	1	3
1449:	0	4	1	2	1	2	3	4
1457:	2	4	4	35	152	224	95	10
1465:	8	1	2	1	2	0	1	1
1473:	1	1	1	2	4	3	7	3
1481:	2	3	0	0	3	1	2	1
1489:	4	1	2	3	1	3	0	4
1497:	3	2	2	1	1	2	3	1
1505:	1	1	0	4	3	4	3	2
1513:	0	2	3	3	0	3	0	0
1521:	1	2	2	4	2	1	4	0
1529:	1	1	0	2	1	2	4	0
1537:	2	4	1	3	0	2	0	1
1545:	2	3	1	1	3	2	1	2
1553:	2	2	0	1	2	2	0	2
1561:	0	3	3	2	2	1	5	2
1569:	2	2	2	1	1	1	2	2
1577:	1	0	1	1	2	1	0	3
1585:	2	2	1	6	11	4	8	3
1593:	6	3	2	1	4	4	0	0
1601:	0	4	2	3	3	0	1	1
1609:	1	1	1	3	0	2	2	1
1617:	1	2	4	3	1	4	2	3
1625:	2	2	1	3	1	1	3	3
1633:	1	0	2	3	2	1	4	2
1641:	1	2	2	0	3	5	2	2
1649:	3	1	1	1	3	2	3	0
1657:	1	1	1	1	2	2	3	1
1665:	0	0	2	3	2	2	0	2
1673:	1	1	3	1	1	0	0	1
1681:	2	1	1	1	0	0	2	4
1689:	1	0	1	0	1	0	1	0
1697:	1	0	4	1	0	2	1	2
1705:	0	0	1	0	0	3	3	1
1713:	1	1	0	0	1	0	3	0
1721:	0	0	1	2	0	1	1	1
1729:	1	6	4	4	1	0	3	1
1737:	0	1	2	2	2	2	0	0
1745:	1	1	0	0	1	1	0	0
1753:	0	1	1	1	0	0	1	1
1761:	0	2	3	8	12	19	13	0
1769:	0	1	0	0	1	2	2	1
1777:	0	1	0	1	2	2	0	2
1785:	1	1	1	3	1	1	2	0
1793:	0	1	1	2	2	0	1	0
1801:	1	0	0	0	0	0	1	1
1809:	0	3	2	0	1	0	0	1
1817:	0	0	2	0	0	0	1	4
1825:	0	2	1	1	0	0	1	0
1833:	3	0	2	3	0	1	1	2
1841:	1	3	2	2	0	0	3	5
1849:	7	4	0	1	1	0	0	0
1857:	1	1	0	0	4	1	2	2
1865:	2	1	0	0	1	0	1	0

1873:	0	2	2	1	0	1	1	1
1881:	0	0	0	1	3	2	1	3
1889:	1	0	1	2	5	0	1	1
1897:	1	3	0	1	0	0	0	3
1905:	1	0	0	1	0	1	0	1
1913:	2	1	1	2	1	1	1	0
1921:	1	0	0	1	2	1	1	1
1929:	1	1	4	0	0	0	0	1
1937:	0	1	3	0	0	2	1	1
1945:	0	0	0	2	0	1	0	0
1953:	0	0	3	1	5	0	1	0
1961:	1	2	1	0	0	0	0	1
1969:	0	1	0	1	2	1	2	1
1977:	1	1	0	1	2	0	0	1
1985:	1	1	1	1	2	2	3	1
1993:	2	0	0	0	1	0	0	0
2001:	0	1	0	3	2	1	1	0
2009:	1	1	0	1	2	0	1	0
2017:	0	2	1	0	1	0	1	1
2025:	0	1	0	1	0	1	0	1
2033:	0	1	0	1	0	1	0	2
2041:	0	3	0	3	2	0	1	3
2049:	1	0	1	1	0	0	2	1
2057:	1	0	2	1	0	0	2	0
2065:	2	0	0	4	1	0	0	0
2073:	0	1	2	0	0	0	0	0
2081:	0	1	0	0	0	1	3	0
2089:	0	0	0	2	0	0	0	1
2097:	1	1	1	2	0	3	3	4
2105:	6	0	1	1	0	1	0	3
2113:	1	0	0	0	1	0	2	1
2121:	1	2	2	0	2	1	2	1
2129:	1	1	0	0	0	2	0	1
2137:	0	0	0	2	0	2	0	1
2145:	0	2	1	1	0	2	1	1
2153:	2	1	1	0	1	0	2	1
2161:	0	4	1	0	2	2	1	2
2169:	1	3	0	1	1	0	1	0
2177:	0	1	0	0	1	0	2	4
2185:	1	1	0	0	1	0	1	0
2193:	0	2	4	1	0	2	0	1
2201:	1	1	2	3	2	7	4	3
2209:	0	1	1	1	1	1	1	0
2217:	1	0	1	3	1	2	1	3
2225:	1	1	2	2	0	1	0	1
2233:	3	0	3	2	2	1	1	1
2241:	0	2	1	0	2	1	2	0
2249:	2	1	1	3	1	0	2	0
2257:	0	0	1	3	1	1	1	4
2265:	2	0	2	3	1	1	1	0
2273:	1	1	1	1	3	1	2	4
2281:	1	0	3	0	1	2	1	1
2289:	0	1	1	0	1	0	0	4
2297:	1	0	0	0	1	5	3	1
2305:	2	0	2	2	1	2	2	1
2313:	1	2	0	1	0	0	3	0
2321:	0	1	3	2	0	3	2	2
2329:	0	0	2	2	0	1	3	2
2337:	2	0	0	1	1	2	1	2
2345:	1	0	0	0	1	0	1	3

2353:	2	1	2	4	0	0	0	0
2361:	0	1	0	1	1	1	0	2
2369:	1	0	4	1	1	0	1	0
2377:	0	2	1	0	0	1	0	1
2385:	0	0	0	2	1	0	0	2
2393:	0	0	0	2	0	0	0	1
2401:	0	0	1	0	1	1	0	2
2409:	0	0	1	0	0	3	1	0
2417:	0	1	0	0	2	0	0	1
2425:	0	2	1	1	0	1	2	2
2433:	0	0	1	0	1	0	0	0
2441:	0	0	1	0	0	0	1	0
2449:	0	2	1	0	2	1	1	1
2457:	4	1	1	0	0	0	1	0
2465:	1	1	1	0	0	3	0	0
2473:	0	1	0	1	2	0	2	0
2481:	0	0	1	0	3	1	0	0
2489:	1	1	1	1	0	2	0	0
2497:	0	1	1	1	0	1	1	0
2505:	1	3	1	0	0	0	1	0
2513:	1	0	0	0	0	0	0	0
2521:	1	0	0	0	0	1	2	0
2529:	1	0	0	1	1	0	1	2
2537:	2	0	0	0	0	0	0	0
2545:	1	0	0	0	2	0	1	0
2553:	1	0	1	0	0	0	0	1
2561:	1	0	1	0	0	0	2	0
2569:	0	0	0	0	1	0	0	0
2577:	0	1	0	0	1	0	1	0
2585:	1	0	0	1	0	2	0	0
2593:	0	0	0	0	0	0	1	1
2601:	0	0	0	0	0	0	1	0
2609:	1	0	0	1	2	10	20	32
2617:	19	8	0	0	0	0	0	1
2625:	2	0	0	0	0	0	0	1
2633:	0	0	1	0	0	2	0	0
2641:	0	0	1	0	0	0	0	1
2649:	0	0	1	0	0	0	1	0
2657:	0	0	0	2	0	0	0	1
2665:	0	1	1	0	0	0	0	0
2673:	0	1	0	2	0	0	0	0
2681:	0	0	0	0	0	0	0	1
2689:	0	0	1	0	0	0	0	0
2697:	1	1	0	0	0	0	1	1
2705:	0	0	2	0	0	1	0	0
2713:	0	0	1	0	0	0	0	0
2721:	0	0	1	0	0	0	0	0
2729:	1	0	0	2	1	1	0	1
2737:	0	0	0	1	0	0	1	0
2745:	0	0	0	0	0	0	1	0
2753:	0	0	0	1	0	0	0	0
2761:	0	0	0	0	0	0	1	1
2769:	0	1	0	1	1	0	1	1
2777:	1	0	0	0	0	0	0	0
2785:	0	1	0	1	0	0	0	0
2793:	0	0	0	0	0	0	0	1
2801:	0	0	0	1	0	1	0	0
2809:	1	0	0	1	0	0	0	0
2817:	0	1	0	1	0	0	0	0
2825:	0	0	1	0	0	0	0	0

2833:	0	0	0	0	0	0	0	0	0
2841:	0	0	0	0	0	0	0	1	0
2849:	1	0	0	0	1	0	0	0	1
2857:	0	1	0	0	0	1	0	0	1
2865:	0	0	0	0	0	0	0	0	0
2873:	0	0	0	0	0	0	0	0	1
2881:	0	0	0	0	0	0	0	0	0
2889:	0	0	0	0	0	0	1	1	1
2897:	0	0	1	0	0	1	0	0	0
2905:	0	0	1	1	0	0	0	0	0
2913:	0	0	0	0	0	0	0	0	0
2921:	0	0	0	0	1	1	0	0	0
2929:	0	2	0	0	0	0	0	0	1
2937:	0	0	2	0	0	0	0	0	0
2945:	0	0	0	0	0	0	0	0	0
2953:	0	0	0	0	1	0	0	0	0
2961:	0	1	0	0	1	0	0	0	0
2969:	0	0	0	0	0	0	0	0	0
2977:	0	1	1	0	0	0	0	0	0
2985:	0	0	1	0	0	0	0	0	0
2993:	0	1	0	0	0	0	0	0	0
3001:	1	0	0	1	0	0	0	0	0
3009:	0	0	0	0	0	1	0	0	0
3017:	1	0	0	0	0	0	1	0	0
3025:	0	0	0	0	0	0	0	0	0
3033:	0	0	0	2	1	0	0	0	0
3041:	0	0	0	0	0	0	0	0	0
3049:	1	0	1	0	0	0	1	0	0
3057:	0	0	0	0	0	0	0	0	0
3065:	0	0	0	0	0	0	0	0	0
3073:	0	0	0	1	0	1	0	0	0
3081:	1	0	0	0	0	0	0	0	0
3089:	1	0	0	0	0	0	0	0	0
3097:	0	0	0	0	0	1	0	0	2
3105:	0	1	0	0	0	0	0	0	0
3113:	0	1	1	0	0	0	0	0	1
3121:	0	0	0	0	0	0	0	0	0
3129:	0	0	0	1	0	0	0	0	0
3137:	0	0	0	1	0	0	0	0	0
3145:	0	0	0	1	0	0	0	0	1
3153:	0	0	0	0	0	0	0	0	0
3161:	0	0	1	0	0	0	0	0	0
3169:	0	0	0	0	0	0	0	0	0
3177:	0	0	0	0	1	0	1	1	1
3185:	0	0	0	0	0	0	1	0	0
3193:	0	0	0	0	0	0	0	0	0
3201:	1	0	0	0	0	0	0	0	0
3209:	0	0	0	0	1	0	0	0	0
3217:	0	0	0	0	0	1	0	0	0
3225:	0	0	0	0	0	1	0	0	0
3233:	0	0	2	0	0	0	0	0	0
3241:	1	0	0	0	0	0	0	0	0
3249:	0	0	0	0	1	0	0	0	0
3257:	0	0	0	0	0	0	0	0	1
3265:	0	0	0	0	1	0	0	0	0
3273:	0	0	0	0	1	0	0	0	0
3281:	0	1	0	0	0	0	0	0	0
3289:	1	1	0	0	0	0	0	0	0
3297:	0	0	0	0	1	0	0	0	0
3305:	1	0	0	2	0	0	0	0	0

3313:	0	0	0	0	0	0	0	0
3321:	0	0	0	0	0	0	1	0
3329:	0	0	0	0	0	1	0	0
3337:	0	0	0	0	1	0	0	0
3345:	0	0	2	0	0	0	0	0
3353:	0	0	0	0	0	1	0	0
3361:	0	1	0	0	0	1	0	0
3369:	0	0	0	0	0	0	0	1
3377:	0	0	0	0	0	0	0	2
3385:	0	0	1	1	0	1	0	0
3393:	0	1	0	1	0	0	1	1
3401:	0	0	0	0	0	0	0	0
3409:	0	0	0	0	0	0	0	0
3417:	0	0	1	0	0	0	0	0
3425:	0	2	0	0	0	0	0	0
3433:	0	0	0	0	1	0	0	0
3441:	1	0	0	0	0	0	0	0
3449:	0	0	0	0	1	0	0	0
3457:	0	1	0	0	0	0	0	0
3465:	0	0	0	0	0	0	0	0
3473:	0	0	0	0	1	0	0	0
3481:	0	0	0	0	1	0	0	0
3489:	0	0	0	0	0	0	1	0
3497:	0	0	0	0	0	0	0	1
3505:	0	0	1	0	0	0	0	0
3513:	0	0	0	0	0	0	0	0
3521:	0	0	0	0	1	0	0	0
3529:	0	0	0	0	0	0	0	0
3537:	1	0	0	0	0	0	0	0
3545:	0	0	0	0	0	0	0	0
3553:	0	0	0	0	0	1	0	0
3561:	0	0	0	0	0	0	0	0
3569:	0	0	1	0	0	0	0	0
3577:	0	0	0	0	0	0	1	0
3585:	0	0	0	0	0	0	0	1
3593:	0	0	0	1	0	0	0	0
3601:	0	0	0	0	0	1	0	0
3609:	1	0	0	0	0	0	0	0
3617:	1	0	0	0	0	0	0	0
3625:	1	0	1	0	0	0	0	1
3633:	0	1	1	0	0	1	0	0
3641:	0	0	0	0	0	0	0	0
3649:	0	0	0	0	0	0	0	0
3657:	0	0	1	0	0	0	0	0
3665:	0	0	0	0	2	0	0	0
3673:	0	0	0	1	0	0	0	0
3681:	0	0	0	0	0	0	0	0
3689:	0	0	0	1	0	0	0	0
3697:	0	0	0	0	0	0	0	0
3705:	0	1	0	0	1	0	0	0
3713:	0	0	0	0	0	0	1	0
3721:	0	0	0	0	0	0	0	0
3729:	0	0	0	0	0	0	0	0
3737:	0	0	0	0	0	0	0	0
3745:	0	0	0	0	0	0	0	0
3753:	0	0	0	0	0	0	0	0
3761:	0	0	0	0	0	0	0	0
3769:	0	0	0	0	0	0	0	0
3777:	1	0	0	0	0	0	0	0
3785:	0	0	0	0	0	0	0	0

3793:	0	0	0	1	0	0	0	0
3801:	0	1	0	0	0	0	0	0
3809:	2	0	0	0	0	0	0	0
3817:	1	0	0	0	0	1	1	0
3825:	0	0	0	0	0	0	0	0
3833:	0	0	0	0	0	0	0	0
3841:	1	0	0	0	0	0	0	1
3849:	0	0	0	0	0	0	0	0
3857:	0	1	0	0	0	0	0	0
3865:	0	0	0	0	0	0	0	0
3873:	1	0	1	0	0	0	0	0
3881:	0	0	0	0	0	0	0	0
3889:	0	0	0	0	0	0	0	1
3897:	0	0	0	0	0	0	0	0
3905:	1	0	0	0	0	0	0	1
3913:	0	0	0	0	0	0	0	0
3921:	0	0	0	0	0	0	0	0
3929:	0	0	0	0	0	0	0	0
3937:	0	0	0	0	0	0	0	1
3945:	0	0	0	0	0	0	1	0
3953:	0	0	0	0	0	0	0	0
3961:	0	0	0	1	0	0	0	0
3969:	0	0	0	0	0	0	0	0
3977:	0	0	0	0	0	0	0	0
3985:	0	0	1	1	0	0	0	0
3993:	0	0	0	0	0	0	0	0
4001:	1	0	0	0	1	0	0	0
4009:	0	0	0	0	0	0	0	1
4017:	0	0	0	0	0	0	0	0
4025:	0	0	1	0	0	1	0	0
4033:	0	0	0	0	0	0	0	0
4041:	0	0	0	0	0	0	0	0
4049:	0	0	0	0	0	0	0	0
4057:	0	0	1	0	0	0	0	0
4065:	0	0	0	0	0	0	0	0
4073:	0	0	0	0	0	0	0	0
4081:	1	1	0	0	1	0	0	1
4089:	0	0	0	0	0	0	0	1

Sample ID : 1111068-07

Acquisition date : 11-DEC-2011 13:25:52

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12/11/11

VAX/VMS Peak Search Report Generated 11-DEC-2011 14:26:13.44

Configuration : DKA100: [GAMMA.SCUSR.ARCHIVE] SMP_111106807_GE4_GAS1102_172283.
 Analyses by : PEAK V16.9 ENBACK V1.6 PEAKEFF V2.2
 Client ID : BKGD-W-31-111107
 Deposition Date :
 Sample Date : 7-NOV-2011 00:00:00. Acquisition date : 11-DEC-2011 13:25:52
 Sample ID : 1111068-07 Sample Quantity : 3.65940E+02 GRAM
 Sample type : SOIL Sample Geometry : 0
 Detector name : GE4 Detector Geometry: GAS-1102
 Elapsed live time: 0 01:00:00.00 Elapsed real time: 0 01:00:01.52 0.0%
 Start channel : 5 End channel : 4096
 Sensitivity : 2.40000 Gaussian : 15.00000
 Critical level : Yes

Post-NID Peak Search Report

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides
0	63.66*	134	973	1.69	63.02	58	10	89.4		TH-234
3	75.10	391	552	1.90	74.46	72	10	24.2	4.24E+00	AM-243
3	77.38*	591	623	2.42	76.74	72	10	17.7		
2	84.51	49	354	2.16	83.88	82	9	114.4	3.88E-01	
2	87.89	125	694	2.45	87.26	82	9	72.2		NP-237 SN-126 CD-109
0	93.40*	175	534	2.19	92.78	90	7	48.7		
0	129.06	108	439	4.61	128.47	124	9	73.1		
0	186.30*	141	449	3.87	185.74	181	11	61.5		RA-226
0	209.52	97	338	4.39	208.98	205	9	71.6		
4	238.96*	632	189	2.03	238.44	232	14	10.5	3.26E+00	PB-212
4	241.90*	174	196	2.76	241.38	232	14	43.6		RA-224
0	271.26	64	206	2.30	270.77	267	9	84.9		LU-173
1	295.56	177	130	2.31	295.08	289	15	25.8	1.35E+00	PB-214
1	300.69	45	130	2.40	300.22	289	15	88.9		PB-212
0	327.91	42	126	1.57	327.46	324	7	93.0		
0	338.11	55	258	1.85	337.66	334	11	115.7		AC-228
0	352.13*	295	200	2.22	351.69	348	11	21.9		PB-214
0	417.15	25	70	2.06	416.76	414	7	118.0		
0	463.91	43	94	2.29	463.55	458	9	86.7		
0	500.82	31	55	2.94	500.49	497	8	91.3		
0	526.14	34	65	2.82	525.82	522	10	95.1		
0	583.63	133	101	2.46	583.36	579	9	32.2		TL-208
0	609.71*	203	74	2.14	609.46	605	10	21.7		BI-214
0	661.81	34	62	2.99	661.59	658	9	90.0		CS-137
0	688.75	20	39	3.43	688.56	685	7	116.4		
0	768.33	30	18	2.47	768.19	765	7	59.5		
0	806.02	23	26	4.26	805.91	802	7	86.2		
0	862.14	34	62	4.13	862.07	857	13	101.7		
0	911.42	114	36	2.65	911.39	906	11	27.6		AC-228
0	938.72	58	45	16.40	938.71	930	20	63.0		
0	969.08	63	57	1.95	969.09	962	12	54.3		AC-228
0	1121.95	22	38	1.98	1122.07	1116	9	112.0		
0	1340.78	25	32	11.04	1341.05	1330	19	116.1		
0	1461.11	273	8	2.39	1461.47	1456	11	12.8		K-40

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12/12/11

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides
0	1509.82	12	2	3.82	1510.22	1507	7	69.7		
0	1540.08	8	4	2.10	1540.49	1537	8	110.7		
0	1550.07	6	4	1.45	1550.50	1547	8	141.4		
0	1670.52	10	2	7.07	1671.03	1666	10	87.3		
0	1744.65	6	4	1.08	1745.22	1740	9	142.4		
0	1765.13	28	0	2.41	1765.71	1762	9	37.8		BI-214
0	1832.49	8	1	2.72	1833.12	1830	6	88.1		
0	2218.92	7	2	2.45	2219.83	2216	8	98.3		
0	2225.96	8	0	2.22	2226.88	2224	7	70.7		
0	2353.99	7	0	1.92	2355.00	2351	8	75.6		
0	2615.60*	54	2	2.36	2616.80	2612	9	30.1		TL-208

Total number of lines in spectrum 45
 Number of unidentified lines 19
 Number of lines tentatively identified by NID 26 57.78%

Nuclide Type : NATURAL

Nuclide	Hlife	Decay	Wtd Mean		Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
			Uncorrected pCi/GRAM	Decay Corr pCi/GRAM			
K-40	1.28E+09Y	1.00	2.917E+01	2.917E+01	0.477E+01	16.36	
TL-208	1.41E+10Y	1.00	2.235E+00	2.235E+00	0.524E+00	23.44	
PB-212	1.41E+10Y	1.00	2.881E+00	2.881E+00	0.413E+00	14.35	
BI-214	1602.00Y	1.00	2.251E+00	2.251E+00	0.468E+00	20.77	
PB-214	1602.00Y	1.00	2.284E+00	2.284E+00	0.427E+00	18.70	
RA-224	1.41E+10Y	1.00	9.026E+00	9.026E+00	4.040E+00	44.76	
RA-226	1602.00Y	1.00	7.151E+00	7.151E+00	13.82E+00	193.21	
AC-228	1.41E+10Y	1.00	2.722E+00	2.722E+00	0.743E+00	27.29	
TH-234	4.47E+09Y	1.00	4.415E+00	4.415E+00	3.965E+00	89.81	
Total Activity :			6.213E+01	6.213E+01			

Nuclide Type : FISSION

Nuclide	Hlife	Decay	Wtd Mean		Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
			Uncorrected pCi/GRAM	Decay Corr pCi/GRAM			
CD-109	464.00D	1.05	4.067E+00	4.282E+00	3.137E+00	73.25	
SN-126	1.00E+05Y	1.00	4.087E-01	4.087E-01	2.984E-01	73.00	
CS-137	30.17Y	1.00	2.207E-01	2.212E-01	2.003E-01	90.57	
NP-237	2.14E+06Y	1.00	1.199E+00	1.199E+00	0.875E+00	72.99	
Total Activity :			5.895E+00	6.111E+00			

Nuclide Type : ACTIVATION

Nuclide	Hlife	Decay	Wtd Mean		Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
			Uncorrected pCi/GRAM	Decay Corr pCi/GRAM			
LU-173	1.37Y	1.05	6.828E-01	7.164E-01	6.128E-01	85.55	
AM-243	7380.00Y	1.00	7.175E-01	7.175E-01	1.868E-01	26.03	
Total Activity :			1.400E+00	1.434E+00			

Grand Total Activity : 6.943E+01 6.968E+01

Flags: "K" = Keyline not found
 "E" = Manually edited

"M" = Manually accepted
 "A" = Nuclide specific abn. limit

Nuclide Type: NATURAL

Nuclide	Energy	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error	Status
K-40	1460.81	10.67*	1.798E-01	2.917E+01	2.917E+01	16.36	OK
Final Mean for 1 Valid Peaks = 2.917E+01 +/- 4.771E+00 (16.36%)							
TL-208	583.14	30.22*	4.216E-01	2.146E+00	2.146E+00	34.46	OK
	860.37	4.48	2.847E-01	-----	Line Not Found	-----	Absent
	2614.66	35.85	1.318E-01	2.324E+00	2.324E+00	31.92	OK
Final Mean for 2 Valid Peaks = 2.235E+00 +/- 5.237E-01 (23.44%)							
PB-212	238.63	44.60*	1.012E+00	2.873E+00	2.873E+00	14.53	OK
	300.09	3.41	8.241E-01	3.263E+00	3.263E+00	89.54	OK
Final Mean for 2 Valid Peaks = 2.881E+00 +/- 4.132E-01 (14.35%)							
BI-214	609.31	46.30*	4.029E-01	2.234E+00	2.234E+00	24.55	OK
	1120.29	15.10	2.230E-01	-----	Line Not Found	-----	Absent
	1764.49	15.80	1.582E-01	2.299E+00	2.299E+00	38.98	OK
	2204.22	4.98	1.404E-01	-----	Line Not Found	-----	Absent
Final Mean for 2 Valid Peaks = 2.251E+00 +/- 4.677E-01 (20.77%)							
PB-214	295.21	19.19	8.368E-01	2.260E+00	2.260E+00	27.94	OK
	351.92	37.19*	7.067E-01	2.304E+00	2.304E+00	25.18	OK
Final Mean for 2 Valid Peaks = 2.284E+00 +/- 4.272E-01 (18.70%)							
RA-224	240.98	3.95*	1.004E+00	9.026E+00	9.026E+00	44.76	OK
Final Mean for 1 Valid Peaks = 9.026E+00 +/- 4.040E+00 (44.76%)							
RA-226	186.21	3.28*	1.229E+00	7.151E+00	7.151E+00	193.21	OK
Final Mean for 1 Valid Peaks = 7.151E+00 +/- 1.382E+01 (193.21%)							
AC-228	338.32	11.40	7.346E-01	1.350E+00	1.350E+00	116.31	OK
	911.07	27.70*	2.695E-01	3.137E+00	3.137E+00	30.88	OK
	969.11	16.60	2.542E-01	3.053E+00	3.053E+00	55.97	OK
Final Mean for 3 Valid Peaks = 2.722E+00 +/- 7.426E-01 (27.29%)							
TH-234	63.29	3.80*	1.639E+00	4.415E+00	4.415E+00	89.81	OK
Final Mean for 1 Valid Peaks = 4.415E+00 +/- 3.965E+00 (89.81%)							

Nuclide Type: FISSION

Nuclide	Energy	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error	Status
CD-109	88.03	3.72*	1.693E+00	4.067E+00	4.282E+00	73.25	OK

Final Mean for 1 Valid Peaks = 4.282E+00+/- 3.137E+00 (73.25%)

SN-126	87.57	37.00*	1.693E+00	4.087E-01	4.087E-01	73.00	OK
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Final Mean for 1 Valid Peaks = 4.087E-01+/- 2.984E-01 (73.00%)

CS-137	661.65	85.12*	3.702E-01	2.207E-01	2.212E-01	90.57	OK
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Final Mean for 1 Valid Peaks = 2.212E-01+/- 2.003E-01 (90.57%)

NP-237	86.50	12.60*	1.695E+00	1.199E+00	1.199E+00	72.99	OK
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Final Mean for 1 Valid Peaks = 1.199E+00+/- 8.751E-01 (72.99%)

Nuclide Type: ACTIVATION

Nuclide	Energy	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error	Status
LU-173	100.72	5.24	1.657E+00	-----	Line Not Found	-----	Absent
	272.11	21.20*	9.019E-01	6.828E-01	7.164E-01	85.55	OK

Final Mean for 1 Valid Peaks = 7.164E-01+/- 6.128E-01 (85.55%)

AM-243	74.67	66.00*	1.692E+00	7.175E-01	7.175E-01	26.03	OK
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Final Mean for 1 Valid Peaks = 7.175E-01+/- 1.868E-01 (26.03%)

Flag: "*" = Keyline

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.917E+01	4.771E+00	2.122E+00	1.995E-01	13.743
CD-109	4.282E+00	3.137E+00	3.829E+00	4.493E-01	1.119
SN-126	4.087E-01	2.984E-01	3.653E-01	3.683E-02	1.119
CS-137	2.212E-01	2.003E-01	2.454E-01	2.272E-02	0.901
LU-173	7.164E-01	6.128E-01	7.241E-01	6.753E-02	0.989
TL-208	2.235E+00	5.237E-01	6.831E-01	7.829E-02	3.271
PB-212	2.881E+00	4.132E-01	3.118E-01	2.879E-02	9.237
BI-214	2.251E+00	4.677E-01	4.606E-01	4.986E-02	4.888
PB-214	2.284E+00	4.272E-01	4.123E-01	4.813E-02	5.540
RA-224	9.026E+00	4.040E+00	3.552E+00	3.283E-01	2.541
RA-226	7.151E+00	1.382E+01	3.961E+00	7.254E+00	1.805
AC-228	2.722E+00	7.426E-01	8.170E-01	1.082E-01	3.331
TH-234	4.415E+00	3.965E+00	3.863E+00	2.930E-01	1.143
NP-237	1.199E+00	8.751E-01	1.072E+00	1.066E-01	1.119
AM-243	7.175E-01	1.868E-01	2.256E-01	1.948E-02	3.181

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	7.861E-01		1.525E+00	2.690E+00	3.490E-01	0.292
NA-22	6.554E-02		1.503E-01	2.925E-01	2.820E-02	0.224
AL-26	5.276E-02		7.487E-02	1.861E-01	1.587E-02	0.283
TI-44	7.648E-02		1.319E-01	1.616E-01	1.290E-02	0.473
SC-46	5.220E-02		1.611E-01	3.073E-01	4.044E-02	0.170
V-48	1.206E-02		5.183E-01	9.716E-01	1.237E-01	0.012
CR-51	1.291E+00		2.281E+00	3.592E+00	3.951E-01	0.359
MN-54	2.090E-02		1.437E-01	2.660E-01	3.248E-02	0.079
CO-56	-2.244E-01		1.782E-01	2.821E-01	3.503E-02	-0.795
CO-57	5.376E-03		1.024E-01	1.541E-01	1.421E-02	0.035
CO-58	-3.046E-02		2.038E-01	3.231E-01	3.815E-02	-0.094
FE-59	3.171E-02		4.076E-01	7.624E-01	9.123E-02	0.042
CO-60	5.136E-02		1.505E-01	2.874E-01	2.960E-02	0.179
ZN-65	5.977E-02		3.514E-01	5.857E-01	6.563E-02	0.102
SE-75	-1.150E-01		1.864E-01	2.660E-01	2.494E-02	-0.432
RB-82	2.620E-01		2.601E+00	4.278E+00	4.792E-01	0.061
RB-83	-3.393E-02		3.238E-01	4.839E-01	8.761E-02	-0.070
KR-85	8.106E+01		3.213E+01	5.958E+01	7.529E+00	1.361
SR-85	5.097E-01		2.020E-01	3.747E-01	4.735E-02	1.361
Y-88	-2.956E-02		1.618E-01	2.638E-01	2.226E-02	-0.112
NB-93M	1.201E+01		6.019E+00	6.680E+00	2.742E+00	1.798
NB-94	-7.413E-02		1.437E-01	2.157E-01	2.770E-02	-0.344
NB-95	2.268E-01		2.398E-01	4.385E-01	4.832E-02	0.517
ZR-95	2.402E-01		3.006E-01	5.898E-01	6.821E-02	0.407
RU-103	5.582E-02		2.334E-01	3.622E-01	6.174E-02	0.154
RU-106	-2.507E-01		1.362E+00	2.266E+00	3.315E-01	-0.111
AG-108M	-1.898E-01		1.520E-01	2.460E-01	2.529E-02	-0.772
AG-110M	4.005E-02		1.531E-01	2.541E-01	2.383E-02	0.158

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SN-113	-1.463E-02		1.874E-01	3.145E-01	4.150E-02	-0.047
TE123M	-9.951E-02		1.109E-01	1.787E-01	1.550E-02	-0.557
SB-124	1.620E-01		1.827E-01	3.073E-01	3.380E-02	0.527
I-125	-1.474E+00		2.257E+00	3.741E+00	3.978E-01	-0.394
SB-125	2.515E-01		3.355E-01	5.980E-01	7.914E-02	0.421
SB-126	-3.386E+00		1.762E+00	2.616E+00	2.679E-01	-1.295
I-129	-2.249E-03		2.135E-01	3.639E-01	4.822E-02	-0.006
I-131	1.395E+00		2.514E+00	4.177E+00	5.052E-01	0.334
BA-133	4.586E-01		2.157E-01	3.512E-01	5.434E-02	1.306
CS-134	5.928E-03		1.482E-01	2.236E-01	2.452E-02	0.027
CS-135	6.345E-01		5.790E-01	9.332E-01	8.701E-02	0.680
CS-136	-1.689E-01		8.936E-01	1.638E+00	2.010E-01	-0.103
LA-138	-5.620E-02		1.717E-01	3.121E-01	2.866E-02	-0.180
CE-139	9.927E-02		1.148E-01	1.987E-01	1.699E-02	0.500
BA-140	2.054E+00		3.077E+00	5.151E+00	1.766E+00	0.399
LA-140	1.696E-01		9.839E-01	1.895E+00	1.711E-01	0.090
CE-141	-8.531E-03		3.251E-01	5.427E-01	1.417E-01	-0.016
CE-144	1.020E-01		8.105E-01	1.224E+00	1.108E-01	0.083
PM-144	-8.110E-02		1.592E-01	2.391E-01	2.355E-02	-0.339
PM-145	2.806E-02		4.390E-01	7.483E-01	4.888E-01	0.037
PM-146	-9.341E-02		2.727E-01	3.956E-01	5.177E-02	-0.236
ND-147	-4.231E+00		7.676E+00	1.077E+01	1.337E+00	-0.393
EU-152	-8.699E-01		9.224E-01	1.475E+00	1.676E-01	-0.590
GD-153	-3.103E-01		3.589E-01	5.526E-01	5.337E-02	-0.562
EU-154	1.120E-01		4.208E-01	8.031E-01	7.742E-02	0.139
EU-155	4.954E-01	+	3.616E-01	5.137E-01	5.112E-02	0.964
EU-156	-1.476E+00		6.909E+00	1.083E+01	2.625E+00	-0.136
HO-166M	1.678E-01		2.345E-01	4.487E-01	4.528E-02	0.374
HF-172	-1.811E-01		7.552E-01	1.119E+00	1.025E-01	-0.162
LU-172	2.283E+00		7.131E+00	1.382E+01	1.590E+00	0.165
HF-175	8.536E-02		2.194E-01	2.716E-01	3.094E-02	0.314
LU-176	5.417E-02		9.412E-02	1.489E-01	1.518E-02	0.364
TA-182	6.994E-01	+	7.879E-01	1.191E+00	1.323E-01	0.587
IR-192	2.697E-01		3.014E-01	4.993E-01	6.505E-02	0.540
HG-203	-5.820E-02		2.161E-01	3.170E-01	3.028E-02	-0.184
BI-207	-4.126E-02		1.236E-01	2.028E-01	2.382E-02	-0.203
BI-210M	1.022E-02		1.969E-01	2.971E-01	2.768E-02	0.034
PB-210	1.426E+00		2.166E+00	3.750E+00	3.122E-01	0.380
PB-211	-1.045E+00		3.482E+00	5.743E+00	7.510E-01	-0.182
BI-212	1.956E+00		1.207E+00	2.390E+00	2.475E-01	0.818
RN-219	8.144E-02		1.478E+00	2.510E+00	3.279E-01	0.032
RA-223	-3.326E-01		2.593E+00	3.849E+00	4.137E-01	-0.086
RA-225	5.894E-01		1.476E+00	2.541E+00	2.392E-01	0.232
TH-227	6.820E+00		1.206E+00	2.022E+00	1.863E-01	3.373
TH-230	1.978E+01		3.364E+01	4.124E+01	3.283E+00	0.480
PA-231	2.191E+00		4.207E+00	6.569E+00	6.611E-01	0.334
TH-231	-2.549E-01		1.060E+00	1.790E+00	2.983E-01	-0.142
PA-233	-3.316E-01		5.274E-01	8.446E-01	1.958E-01	-0.393

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PA-234	1.506E-01		4.016E-01	6.131E-01	5.569E-02	0.246
PA-234M	6.669E+00		1.162E+01	2.343E+01	2.945E+00	0.285
U-235	-2.294E-01		7.215E-01	1.189E+00	2.098E-01	-0.193
AM-241	3.581E-01		2.564E-01	4.057E-01	2.959E-02	0.883
CM-243	3.583E-01		6.838E-01	1.064E+00	9.923E-02	0.337

Total number of lines in spectrum 45
 Number of unidentified lines 19
 Number of lines tentatively identified by NID 26 57.78%

Nuclide Type : NATURAL

Nuclide	Hlife	Decay	Wtd Mean		Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
			Uncorrected pCi/GRAM	Decay Corr pCi/GRAM			
K-40	1.28E+09Y	1.00	2.917E+01	2.917E+01	0.477E+01	16.36	
TL-208	1.41E+10Y	1.00	2.235E+00	2.235E+00	0.524E+00	23.44	
PB-212	1.41E+10Y	1.00	2.881E+00	2.881E+00	0.413E+00	14.35	
BI-214	1602.00Y	1.00	2.251E+00	2.251E+00	0.468E+00	20.77	
PB-214	1602.00Y	1.00	2.284E+00	2.284E+00	0.427E+00	18.70	
RA-224	1.41E+10Y	1.00	9.026E+00	9.026E+00	4.040E+00	44.76	
RA-226	1602.00Y	1.00	7.151E+00	7.151E+00	13.82E+00	193.21	
AC-228	1.41E+10Y	1.00	2.722E+00	2.722E+00	0.743E+00	27.29	
TH-234	4.47E+09Y	1.00	4.415E+00	4.415E+00	3.965E+00	89.81	
Total Activity :			6.213E+01	6.213E+01			

Nuclide Type : FISSION

Nuclide	Hlife	Decay	Wtd Mean		Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
			Uncorrected pCi/GRAM	Decay Corr pCi/GRAM			
CD-109	464.00D	1.05	4.067E+00	4.282E+00	3.137E+00	73.25	
SN-126	1.00E+05Y	1.00	4.087E-01	4.087E-01	2.984E-01	73.00	
CS-137	30.17Y	1.00	2.207E-01	2.212E-01	2.003E-01	90.57	
NP-237	2.14E+06Y	1.00	1.199E+00	1.199E+00	0.875E+00	72.99	
Total Activity :			5.895E+00	6.111E+00			

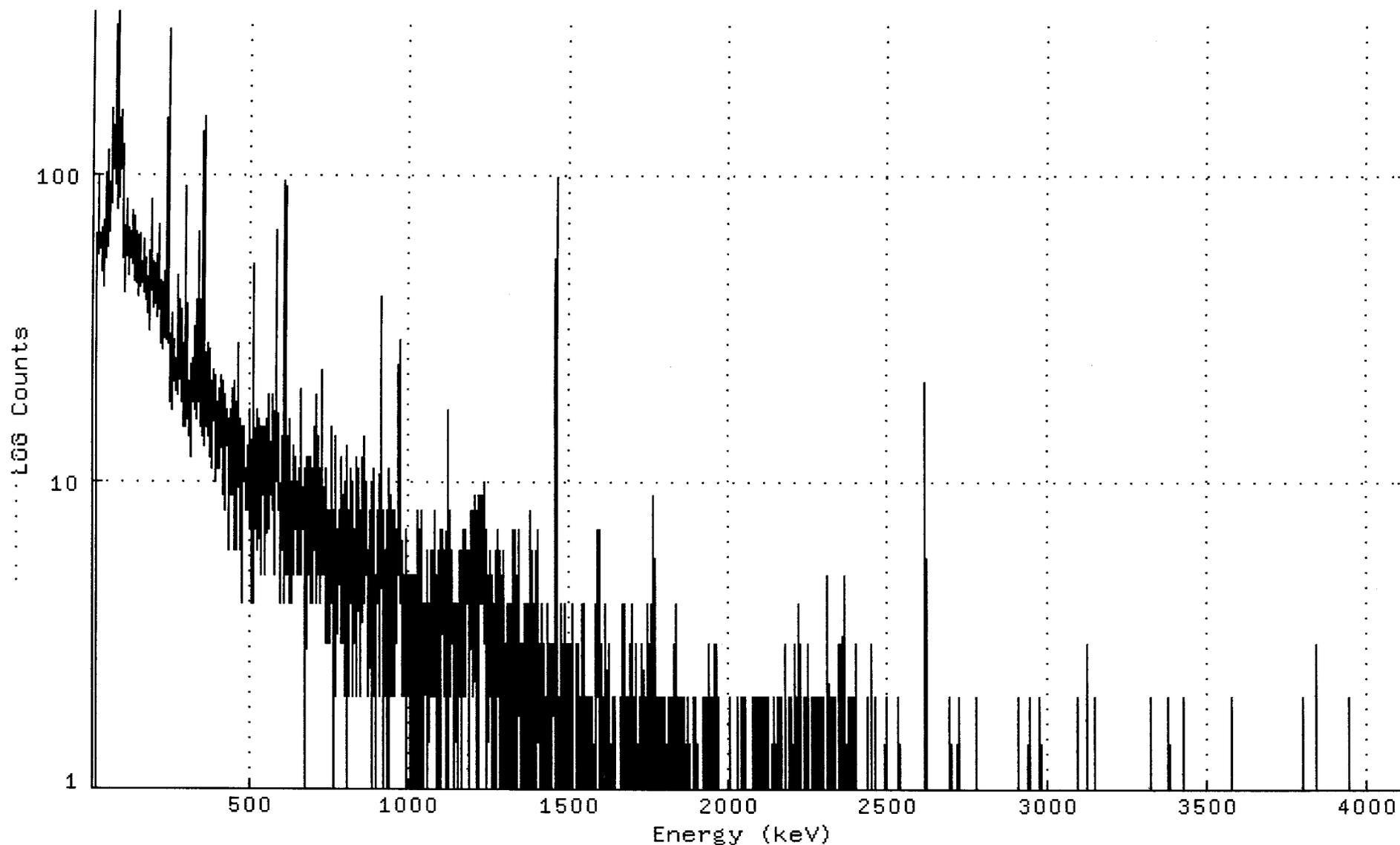
Nuclide Type : ACTIVATION

Nuclide	Hlife	Decay	Wtd Mean		Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
			Uncorrected pCi/GRAM	Decay Corr pCi/GRAM			
LU-173	1.37Y	1.05	6.828E-01	7.164E-01	6.128E-01	85.55	
AM-243	7380.00Y	1.00	7.175E-01	7.175E-01	1.868E-01	26.03	
Total Activity :			1.400E+00	1.434E+00			

Grand Total Activity : 6.943E+01 6.968E+01

Flags: "K" = Keyline not found "M" = Manually accepted
 "E" = Manually edited "A" = Nuclide specific abn. limit

Spectrum : DKA100:[GAMMA.SCUSR.ARCHIVE]SMP_111106807_GE4_GAS1102_172283.CNF;1
Title :
Sample Title: BKGD-W-31-111107
Start Time: 11-DEC-2011 13:25 Sample Time: 7-NOV-2011 00:00: Energy Offset: 6.91748E-01
Real Time : 0 01:00:01.52 Sample ID : 1111068-07 Energy Slope : 9.99279E-01
Live Time : 0 01:00:00.00 Sample Type: SOIL Energy Quad : 0.00000E+00



Channel Contents for DKA100: [GAMMA.SCUSR.ARCHIVE] SMP_111106807_GE4_GAS1102_1722

Channel

1:	0	0	0	0	0	0	0	0
9:	0	0	0	0	0	1	42	99
17:	86	79	83	65	55	60	60	59
25:	63	57	62	67	53	63	58	48
33:	58	55	61	43	67	70	71	72
41:	57	61	62	53	85	119	97	62
49:	58	68	75	69	65	65	94	83
57:	91	80	94	110	100	122	164	128
65:	110	114	113	103	111	124	103	92
73:	143	258	306	288	341	155	100	93
81:	77	88	94	116	104	120	151	141
89:	114	114	103	159	160	97	75	53
97:	55	65	58	64	59	54	41	52
105:	68	61	63	82	58	54	64	58
113:	47	54	54	59	67	58	65	63
121:	63	59	55	51	55	65	64	66
129:	76	71	54	45	46	59	61	56
137:	61	65	44	57	59	58	40	60
145:	48	57	63	49	49	43	64	47
153:	51	50	50	52	46	47	47	41
161:	42	56	59	61	52	47	39	53
169:	43	46	52	38	35	44	46	43
177:	43	37	47	31	40	32	44	73
185:	76	79	82	42	50	52	45	46
193:	40	46	37	41	38	51	38	44
201:	45	46	40	37	38	55	34	53
209:	69	61	36	49	39	36	45	38
217:	36	34	28	35	44	37	43	43
225:	27	31	33	44	37	33	48	33
233:	40	41	29	42	79	297	280	88
241:	81	79	35	22	20	18	23	28
249:	30	17	20	30	35	29	17	29
257:	27	29	29	25	22	20	24	23
265:	25	22	20	19	33	46	47	25
273:	27	31	22	27	39	26	25	18
281:	19	27	21	36	26	19	23	22
289:	15	28	24	15	21	58	91	66
297:	26	19	23	38	28	16	18	19
305:	21	21	21	20	14	24	20	14
313:	12	17	19	18	21	19	25	18
321:	19	20	17	20	20	22	26	39
329:	25	16	19	21	24	19	18	23
337:	29	65	51	30	15	16	19	28
345:	22	15	14	14	15	27	123	153
353:	74	24	18	18	13	26	16	23
361:	15	21	24	28	18	20	17	14
369:	15	21	17	23	12	27	20	11
377:	18	11	21	15	15	16	19	18
385:	16	17	23	19	19	19	15	10
393:	22	12	11	15	11	18	14	15
401:	16	20	13	11	11	22	15	14
409:	20	15	18	9	10	10	15	17
417:	21	9	11	12	8	13	19	13
425:	14	13	14	17	14	14	16	6

433:	10	12	10	17	15	15	15	12
441:	9	12	9	20	10	9	9	15
449:	15	21	6	9	12	12	11	6
457:	15	8	18	11	11	17	28	23
465:	15	6	13	16	10	11	11	11
473:	4	6	13	15	11	10	15	14
481:	11	15	13	8	11	11	8	11
489:	10	8	12	12	11	9	13	7
497:	8	10	13	17	17	11	6	4
505:	9	10	12	4	13	45	51	36
513:	17	13	7	11	10	13	8	12
521:	6	7	6	14	17	15	9	7
529:	9	8	7	6	5	11	15	8
537:	9	12	11	15	12	9	13	9
545:	15	11	10	7	5	9	9	9
553:	14	10	16	10	7	12	19	8
561:	14	13	9	9	12	11	9	9
569:	14	8	8	9	19	15	14	9
577:	5	14	10	10	12	39	66	55
585:	21	13	8	13	8	14	12	8
593:	7	6	7	4	8	6	14	13
601:	7	7	14	7	4	12	11	28
609:	95	88	25	8	12	5	13	11
617:	9	10	14	5	8	4	11	13
625:	9	6	16	4	5	8	10	9
633:	10	6	13	5	9	5	7	11
641:	11	8	12	7	10	9	10	6
649:	5	8	6	11	8	5	8	10
657:	6	5	10	13	12	20	13	7
665:	7	9	7	9	8	11	9	9
673:	9	10	1	8	7	6	12	9
681:	8	10	5	8	5	7	12	12
689:	11	8	4	6	9	7	11	4
697:	11	9	5	13	15	8	6	14
705:	8	5	4	9	8	19	10	5
713:	7	5	14	7	9	4	7	5
721:	11	4	5	5	9	15	15	23
729:	13	7	6	5	6	9	9	3
737:	10	5	7	11	5	8	6	4
745:	4	3	8	6	7	8	3	6
753:	4	9	4	15	6	5	5	5
761:	4	2	8	1	2	2	12	14
769:	9	7	2	5	4	6	6	7
777:	6	8	5	6	8	6	7	3
785:	11	12	11	6	8	7	3	9
793:	3	7	9	8	10	8	4	2
801:	6	1	8	10	7	8	13	2
809:	6	6	6	8	6	6	9	7
817:	4	7	11	2	8	5	10	7
825:	4	3	3	3	7	6	5	3
833:	10	7	7	12	2	7	11	7
841:	7	7	9	5	3	4	2	8
849:	2	6	7	5	12	6	6	4
857:	5	5	7	14	10	6	10	9
865:	5	8	6	6	5	5	5	6
873:	2	3	5	8	5	6	6	7
881:	5	6	10	1	7	4	2	4
889:	11	6	4	5	4	5	3	1
897:	2	8	7	5	6	4	8	7
905:	3	2	7	6	8	14	33	40

913:	23	8	5	4	4	1	8	2
921:	3	6	6	4	3	2	5	7
929:	3	1	8	7	5	11	10	4
937:	1	2	5	3	4	6	9	4
945:	2	6	8	4	3	2	5	8
953:	8	5	7	2	5	7	3	7
961:	6	5	3	8	12	6	7	11
969:	20	29	10	5	4	4	7	6
977:	2	5	3	5	2	2	4	3
985:	5	4	4	2	3	0	7	1
993:	3	2	3	4	5	5	3	3
1001:	4	5	2	1	5	2	3	2
1009:	0	5	3	1	5	2	2	3
1017:	3	1	4	2	4	5	4	4
1025:	0	3	6	8	5	4	1	5
1033:	1	7	1	0	8	4	2	2
1041:	3	2	3	3	1	1	4	4
1049:	4	3	3	4	4	1	6	5
1057:	1	3	1	2	4	3	3	4
1065:	4	4	2	6	3	4	4	3
1073:	4	6	5	2	4	6	8	4
1081:	2	2	6	2	1	2	5	3
1089:	2	6	3	3	4	3	1	7
1097:	3	5	1	4	2	5	5	4
1105:	7	4	4	6	4	2	2	4
1113:	6	1	6	4	5	5	4	12
1121:	17	9	2	1	6	8	3	2
1129:	5	2	7	4	6	3	6	4
1137:	3	4	1	3	3	2	3	2
1145:	4	4	2	2	2	0	4	2
1153:	4	3	4	3	6	4	3	2
1161:	4	2	3	2	5	6	1	4
1169:	3	7	4	3	2	4	7	6
1177:	2	3	5	4	4	4	6	6
1185:	5	5	6	5	6	3	1	8
1193:	6	4	3	5	5	2	7	4
1201:	7	5	8	4	6	4	9	6
1209:	5	1	4	8	6	4	3	1
1217:	3	8	3	9	4	9	5	4
1225:	6	6	6	4	9	5	6	5
1233:	5	5	3	8	5	5	10	4
1241:	1	4	4	7	1	2	2	4
1249:	4	3	5	2	3	6	3	5
1257:	6	4	3	5	4	1	4	3
1265:	4	1	3	1	3	2	1	6
1273:	6	1	4	6	3	2	7	3
1281:	6	1	5	4	6	1	3	1
1289:	5	2	5	4	2	1	3	5
1297:	2	6	4	2	1	3	2	3
1305:	2	4	4	3	2	1	2	2
1313:	2	1	3	4	3	3	4	1
1321:	2	4	3	2	7	1	1	3
1329:	2	3	2	1	7	3	4	4
1337:	3	1	5	1	2	3	7	3
1345:	3	2	3	0	2	3	2	1
1353:	2	1	2	3	1	1	2	0
1361:	3	0	1	2	4	4	3	1
1369:	2	4	1	3	4	1	2	1
1377:	4	7	8	5	3	1	0	6
1385:	1	2	1	2	3	1	4	2

1393:	1	0	3	2	4	1	2	6
1401:	3	3	7	2	2	2	0	2
1409:	3	0	3	2	1	1	4	1
1417:	1	2	2	2	3	2	1	1
1425:	1	0	2	1	1	2	2	1
1433:	2	4	0	1	2	1	1	0
1441:	3	1	2	3	1	3	1	3
1449:	2	3	2	2	3	3	1	1
1457:	2	7	7	31	91	98	36	7
1465:	1	0	1	2	2	0	0	0
1473:	4	0	1	2	1	2	0	1
1481:	3	1	3	1	2	0	0	1
1489:	4	0	0	2	3	1	1	2
1497:	3	1	2	1	1	2	2	2
1505:	3	1	0	2	4	1	4	2
1513:	0	0	1	0	1	1	1	1
1521:	0	2	3	1	1	2	0	0
1529:	1	2	3	1	2	0	2	0
1537:	0	0	1	4	3	2	1	1
1545:	1	0	1	0	2	4	1	1
1553:	1	0	1	1	0	0	2	0
1561:	2	0	2	2	0	2	1	2
1569:	2	0	0	0	2	1	1	0
1577:	0	1	1	1	2	2	1	1
1585:	2	4	3	7	5	3	5	2
1593:	7	4	3	1	2	2	3	0
1601:	1	1	1	0	0	0	1	1
1609:	2	1	1	4	2	1	1	3
1617:	2	1	0	0	1	2	3	0
1625:	2	1	1	2	0	1	1	1
1633:	1	1	2	2	2	0	0	1
1641:	0	1	1	2	1	0	1	0
1649:	1	1	0	0	1	1	0	0
1657:	1	0	0	0	1	0	2	0
1665:	1	0	4	1	0	0	1	1
1673:	4	1	0	0	2	0	1	2
1681:	1	0	1	1	2	1	0	1
1689:	0	0	0	0	1	3	0	0
1697:	4	0	2	1	0	2	2	1
1705:	0	1	1	1	3	0	2	2
1713:	0	1	1	1	0	1	0	1
1721:	0	2	0	1	2	1	2	1
1729:	0	3	2	0	1	0	2	1
1737:	1	2	0	2	1	0	1	0
1745:	4	1	1	0	0	0	0	1
1753:	1	3	0	0	2	0	0	4
1761:	0	0	2	2	9	8	4	2
1769:	1	0	0	0	2	1	1	0
1777:	0	0	1	0	0	2	2	2
1785:	0	0	2	1	1	0	0	0
1793:	1	1	2	1	0	2	0	0
1801:	0	1	0	0	0	0	0	1
1809:	2	1	0	2	0	0	0	0
1817:	1	1	0	2	0	0	0	0
1825:	1	2	1	0	0	1	0	3
1833:	1	4	0	0	0	1	2	0
1841:	0	2	1	2	1	0	0	2
1849:	1	2	1	2	0	0	2	1
1857:	1	2	1	1	0	2	1	1
1865:	0	0	1	1	0	0	1	2

1873:	1	2	1	0	0	0	1	0
1881:	0	0	1	1	0	0	0	0
1889:	1	1	1	2	1	2	1	0
1897:	0	2	1	1	1	0	0	0
1905:	0	0	0	1	0	0	0	0
1913:	0	0	0	0	1	0	1	1
1921:	1	2	0	1	0	0	2	0
1929:	0	1	0	0	0	2	1	0
1937:	3	0	0	1	2	0	0	0
1945:	1	0	0	2	2	0	0	0
1953:	0	0	3	0	1	1	2	1
1961:	0	3	3	1	0	1	2	0
1969:	0	1	1	0	1	0	1	0
1977:	0	0	1	0	0	0	0	1
1985:	0	1	0	0	0	1	0	1
1993:	1	1	1	1	1	1	0	0
2001:	0	0	1	2	0	0	1	1
2009:	0	1	1	1	1	1	0	0
2017:	0	1	1	0	1	0	1	0
2025:	0	0	2	1	1	0	1	0
2033:	1	0	1	1	0	0	2	1
2041:	1	1	1	2	2	1	2	0
2049:	1	0	0	0	2	0	1	0
2057:	1	1	0	0	1	1	0	0
2065:	0	1	1	0	0	0	1	1
2073:	0	0	2	2	1	0	0	0
2081:	0	0	2	1	0	0	0	0
2089:	2	1	0	0	0	1	1	2
2097:	2	0	0	0	0	1	1	2
2105:	2	2	1	1	0	0	1	0
2113:	2	0	1	0	0	2	0	1
2121:	2	1	0	1	1	0	1	0
2129:	1	1	1	1	1	0	0	1
2137:	1	1	2	0	1	1	1	2
2145:	0	0	0	1	1	0	2	1
2153:	0	2	0	0	0	0	0	0
2161:	2	0	2	2	0	0	2	0
2169:	1	1	0	0	1	0	1	0
2177:	2	1	3	0	1	0	0	0
2185:	0	0	1	0	2	1	0	1
2193:	0	2	0	1	1	1	0	0
2201:	1	0	1	1	2	3	2	0
2209:	2	0	0	1	2	0	1	0
2217:	0	4	1	2	1	1	0	0
2225:	1	2	3	1	1	0	0	1
2233:	1	0	1	0	0	2	2	1
2241:	2	0	2	1	2	1	0	1
2249:	3	0	0	1	0	1	0	0
2257:	0	1	0	0	1	0	1	2
2265:	1	0	0	0	2	1	1	2
2273:	0	1	1	2	1	1	2	1
2281:	2	0	1	1	2	1	2	2
2289:	1	0	0	0	2	1	1	0
2297:	0	1	2	1	0	0	0	0
2305:	1	1	0	1	0	0	0	5
2313:	0	0	2	1	1	0	0	2
2321:	1	2	0	0	0	0	2	2
2329:	1	0	0	2	1	0	2	0
2337:	1	0	0	0	1	1	1	3
2345:	1	0	0	0	0	0	0	0

2353:	0	3	2	1	1	0	0	2
2361:	5	1	1	1	0	2	1	0
2369:	0	0	1	1	0	0	2	0
2377:	1	2	1	0	0	2	0	0
2385:	0	0	2	1	0	0	0	1
2393:	2	1	0	1	0	0	1	3
2401:	0	0	0	1	0	0	0	0
2409:	0	0	0	0	1	0	0	1
2417:	0	0	0	0	1	0	0	1
2425:	0	0	0	0	0	1	0	0
2433:	0	2	0	1	0	0	0	0
2441:	0	1	0	1	0	1	2	3
2449:	1	1	1	0	0	1	0	0
2457:	0	0	1	2	1	1	0	0
2465:	0	0	0	0	0	1	0	0
2473:	0	0	1	0	0	1	0	1
2481:	0	0	1	0	1	1	0	0
2489:	1	0	0	0	2	0	0	0
2497:	0	0	1	0	1	0	0	0
2505:	0	0	0	0	0	0	0	0
2513:	0	0	0	0	0	0	0	0
2521:	0	1	0	0	0	1	0	0
2529:	1	0	0	1	0	2	0	0
2537:	0	1	0	0	0	0	1	0
2545:	0	0	1	0	0	0	1	1
2553:	0	1	1	0	0	1	0	0
2561:	1	0	1	1	0	0	0	0
2569:	0	1	1	1	0	0	0	0
2577:	0	0	0	0	0	0	0	0
2585:	1	0	0	1	0	0	0	0
2593:	1	1	0	0	0	0	0	1
2601:	0	0	1	0	0	0	0	1
2609:	1	0	0	1	0	0	6	19
2617:	21	8	4	0	0	0	0	0
2625:	1	0	0	0	0	0	0	0
2633:	0	0	0	0	1	0	0	0
2641:	0	1	0	0	0	0	0	0
2649:	1	1	0	0	1	0	0	0
2657:	0	0	0	1	0	0	1	1
2665:	0	0	0	0	0	0	1	0
2673:	1	0	1	0	1	0	0	0
2681:	0	0	0	0	0	0	0	0
2689:	0	0	0	0	1	0	1	2
2697:	0	0	0	0	0	0	0	0
2705:	0	0	0	0	0	0	1	0
2713:	1	0	0	0	0	0	0	0
2721:	2	0	0	0	0	1	0	0
2729:	0	0	1	0	0	0	0	0
2737:	0	0	0	0	0	0	0	0
2745:	0	0	0	0	1	1	0	0
2753:	0	0	0	1	0	0	0	0
2761:	0	0	0	0	0	0	1	0
2769:	0	0	0	1	0	0	0	0
2777:	0	2	0	0	0	1	0	0
2785:	0	1	0	0	0	1	0	0
2793:	0	0	0	1	0	0	0	0
2801:	0	0	0	1	0	0	0	1
2809:	0	1	0	0	0	0	0	0
2817:	0	0	0	0	0	1	0	0
2825:	0	1	0	0	0	0	0	0

2833:	0	0	0	0	0	0	0	0
2841:	0	0	0	1	1	0	0	0
2849:	0	0	0	0	0	0	0	0
2857:	0	0	0	0	0	0	1	0
2865:	0	0	0	0	0	0	1	0
2873:	0	0	0	1	0	0	0	1
2881:	0	0	0	0	0	0	1	0
2889:	0	0	0	1	0	0	0	1
2897:	0	0	1	0	0	0	0	0
2905:	0	0	2	0	2	0	0	1
2913:	0	0	0	0	1	0	0	0
2921:	0	0	0	0	0	0	0	0
2929:	0	0	0	0	0	0	1	0
2937:	0	0	1	1	1	2	0	0
2945:	0	0	0	0	0	0	0	0
2953:	0	0	0	1	0	0	0	0
2961:	0	0	0	0	0	0	0	1
2969:	1	0	0	0	0	0	0	1
2977:	2	0	0	1	0	0	0	0
2985:	0	0	1	0	0	0	0	0
2993:	0	0	0	0	0	0	0	0
3001:	0	0	0	0	0	0	0	1
3009:	0	0	1	0	1	0	0	0
3017:	0	0	0	0	0	0	0	0
3025:	0	0	0	0	0	0	0	0
3033:	0	0	0	0	0	0	0	0
3041:	0	0	1	1	0	1	0	1
3049:	0	0	0	0	0	0	1	0
3057:	0	0	1	1	0	0	1	0
3065:	0	0	0	0	0	0	0	0
3073:	0	0	0	1	0	0	0	0
3081:	0	0	0	0	1	0	0	0
3089:	0	0	0	0	0	2	1	0
3097:	0	0	0	0	1	0	0	0
3105:	0	0	0	0	0	0	0	0
3113:	1	1	0	0	0	0	0	0
3121:	0	0	3	0	0	0	0	0
3129:	1	0	0	1	0	0	0	0
3137:	0	0	0	0	0	0	0	0
3145:	0	1	2	0	0	0	0	0
3153:	0	0	0	0	1	0	0	0
3161:	0	0	0	0	0	0	0	0
3169:	0	1	0	0	0	0	0	0
3177:	0	0	0	0	0	0	1	0
3185:	0	0	0	0	0	0	0	0
3193:	1	0	0	0	0	0	0	0
3201:	0	0	0	0	0	0	0	0
3209:	0	0	0	0	0	0	0	1
3217:	0	0	0	0	0	0	0	0
3225:	0	0	0	0	0	0	0	0
3233:	0	0	0	0	0	0	0	0
3241:	0	0	0	0	0	0	0	0
3249:	0	0	1	0	0	0	0	0
3257:	0	0	0	0	0	0	1	1
3265:	0	0	0	0	0	0	0	0
3273:	0	0	0	0	1	0	0	0
3281:	1	0	0	0	1	0	0	0
3289:	0	1	0	0	0	0	0	0
3297:	0	0	0	0	0	0	1	0
3305:	0	0	0	0	0	1	0	0

3313:	0	0	0	0	0	0	0	0
3321:	0	2	0	0	0	0	0	0
3329:	1	0	0	0	1	0	0	0
3337:	0	0	0	0	0	0	0	0
3345:	0	0	0	0	1	0	0	0
3353:	0	0	0	0	0	0	0	0
3361:	0	0	0	0	0	0	0	1
3369:	0	1	0	0	0	0	0	0
3377:	0	0	2	0	0	0	0	0
3385:	0	1	0	0	0	0	0	0
3393:	0	0	0	0	0	0	0	0
3401:	0	0	0	0	0	0	0	0
3409:	0	0	1	0	0	0	0	0
3417:	0	0	0	0	0	0	0	2
3425:	0	0	0	0	0	0	0	0
3433:	0	0	1	0	0	0	1	0
3441:	0	0	0	0	1	0	0	0
3449:	0	0	0	0	0	0	0	0
3457:	0	0	0	0	0	1	0	0
3465:	0	0	0	0	0	0	0	0
3473:	0	0	0	0	0	0	0	0
3481:	0	0	0	0	0	0	0	0
3489:	0	0	0	0	0	0	0	0
3497:	0	0	0	0	0	0	0	0
3505:	0	0	0	0	0	0	1	0
3513:	1	0	0	0	0	0	0	0
3521:	0	0	0	0	0	0	0	0
3529:	0	0	0	0	0	0	0	0
3537:	0	0	0	0	0	0	0	0
3545:	0	0	0	0	0	0	0	0
3553:	1	0	0	0	0	0	0	0
3561:	0	0	0	0	0	0	0	0
3569:	0	0	0	0	0	2	1	0
3577:	0	0	1	0	0	0	0	0
3585:	0	0	0	1	1	0	0	0
3593:	0	0	0	0	0	0	0	0
3601:	0	1	0	0	0	0	0	0
3609:	0	0	0	0	0	0	0	0
3617:	0	1	0	0	0	0	0	0
3625:	0	0	0	0	1	0	0	0
3633:	0	0	0	0	0	0	0	0
3641:	0	1	1	0	0	0	0	0
3649:	0	0	0	0	0	0	0	0
3657:	0	0	0	0	0	1	0	0
3665:	0	0	1	0	0	0	0	1
3673:	0	0	0	0	0	0	0	0
3681:	0	0	0	0	0	0	0	0
3689:	0	0	0	0	0	0	0	0
3697:	0	0	0	0	0	0	0	0
3705:	0	0	0	0	0	0	0	1
3713:	0	0	0	1	0	0	0	1
3721:	0	1	0	0	0	0	0	0
3729:	0	0	0	0	0	0	0	0
3737:	0	0	0	0	0	0	0	0
3745:	0	0	0	0	0	0	0	0
3753:	0	0	0	0	1	0	0	0
3761:	0	0	0	0	0	0	0	0
3769:	0	0	0	0	0	0	1	0
3777:	1	0	0	0	0	0	0	0
3785:	0	0	0	0	0	0	1	0

3793:	0	0	0	2	0	0	0	0
3801:	0	0	0	0	1	0	0	0
3809:	0	0	0	0	1	0	0	0
3817:	0	0	0	0	0	0	0	0
3825:	0	0	0	0	0	0	0	0
3833:	0	1	0	0	0	0	3	0
3841:	0	0	0	0	1	0	0	0
3849:	0	1	1	0	0	0	0	0
3857:	1	0	0	0	0	0	0	0
3865:	0	0	0	0	0	0	1	0
3873:	0	0	0	0	0	0	0	0
3881:	0	0	0	0	1	0	0	0
3889:	0	0	0	0	0	0	0	0
3897:	0	0	1	0	0	0	0	0
3905:	0	0	0	0	0	0	0	0
3913:	0	1	0	0	1	0	0	0
3921:	0	0	0	0	1	0	0	0
3929:	0	0	0	0	0	0	0	0
3937:	0	0	0	0	2	0	0	0
3945:	0	0	0	0	0	0	0	0
3953:	0	0	1	0	1	0	0	1
3961:	1	1	0	1	1	0	0	0
3969:	0	0	0	0	0	0	0	0
3977:	0	0	0	0	0	0	0	1
3985:	0	0	0	0	0	0	0	0
3993:	1	0	0	0	0	0	1	0
4001:	0	0	0	0	0	0	0	0
4009:	0	0	0	0	0	0	0	0
4017:	0	0	0	0	0	0	0	0
4025:	0	0	0	0	0	0	0	1
4033:	0	1	0	0	0	0	0	0
4041:	0	0	0	0	0	0	0	0
4049:	0	1	0	0	0	0	0	0
4057:	0	0	0	0	0	0	0	0
4065:	0	0	0	0	0	0	0	0
4073:	0	0	0	0	0	0	0	0
4081:	0	0	1	0	1	1	0	0
4089:	0	0	0	0	0	0	0	0

VAX/VMS Peak Search Report Generated 11-DEC-2011 15:31:03.08

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12/11/11

Configuration : DKA100: [GAMMA.SCUSR.ARCHIVE] SMP_111106808_GE2_GAS1102_172288.
 Analyses by : PEAK V16.9 ENBACK V1.6 PEAKEFF V2.2
 Client ID : S12-12-31-111107
 Deposition Date :
 Sample Date : 7-NOV-2011 00:00:00. Acquisition date : 11-DEC-2011 14:30:41
 Sample ID : 1111068-08 Sample Quantity : 4.13840E+02 GRAM
 Sample type : SOIL Sample Geometry : 0
 Detector name : GE2 Detector Geometry: GAS-1102
 Elapsed live time: 0 01:00:00.00 Elapsed real time: 0 01:00:05.70 0.2%
 Start channel : 5 End channel : 4096
 Sensitivity : 2.40000 Gaussian : 15.00000
 Critical level : Yes

Post-NID Peak Search Report

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides
0	46.64*	1196	3433	1.41	46.59	44	6	16.6		PB-210
0	53.83*	276	3248	1.67	53.78	51	5	63.3		
0	63.24*	1427	5975	1.98	63.19	60	7	18.8		TH-234
0	76.50*	8875	8536	3.45	76.46	72	9	4.3		
0	92.99*	2044	4912	1.23	92.96	90	7	12.5		
0	112.32	161	2996	3.66	112.29	110	6	109.0		
0	143.82*	341	3375	1.34	143.80	141	7	57.6		
0	154.30	243	3542	1.74	154.29	151	7	82.1		
0	186.16*	2909	2907	1.57	186.17	182	7	7.2		RA-226
2	238.83*	348	728	1.37	238.85	238	10	21.1	8.83E+00	PB-212
2	242.15*	2805	1227	1.37	242.18	238	10	5.2		RA-224
0	259.75	129	1442	1.30	259.78	257	6	95.5		
0	270.29	375	1625	2.63	270.33	267	7	37.1		
0	275.14	187	1025	2.80	275.17	274	5	53.8		
0	295.30*	6070	1738	1.79	295.35	291	9	3.6		PB-214
0	329.42	86	913	2.65	329.48	327	6	112.9		
0	338.35*	142	1248	2.02	338.40	334	8	87.9		
0	351.98*	10661	1177	1.39	352.04	348	8	2.2		PB-214
0	388.31	111	917	1.22	388.39	385	7	92.1		
0	401.51	79	789	1.31	401.59	399	6	114.4		RN-219
0	426.44	97	936	3.90	426.53	423	8	111.6		
0	439.10	80	703	2.54	439.20	436	8	117.3		
0	454.51	103	729	1.66	454.61	451	9	96.3		
0	462.57	90	642	2.95	462.67	459	8	99.5		
0	480.34	114	529	1.37	480.45	477	7	69.7		
0	486.48	129	485	2.01	486.60	484	7	59.1		
0	501.62	81	299	2.64	501.74	500	5	67.7		
0	509.78*	192	712	2.40	509.90	505	11	56.6		
2	579.99	94	360	2.05	580.14	577	12	66.6	3.25E+00	
2	583.46*	123	425	2.22	583.61	577	12	60.4		TL-208
0	609.27*	7899	424	1.99	609.43	605	8	2.4		BI-214
1	665.70	279	223	2.08	665.88	660	13	20.7	6.92E+00	
0	682.93	64	302	1.41	683.11	680	8	97.8		
0	703.38	75	323	1.56	703.58	699	8	86.4		
0	720.39	97	267	1.31	720.59	717	7	59.6		
0	768.29	722	442	2.12	768.51	764	10	13.2		

AG
12/12/11

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides
0	785.39*	241	303	2.17	785.62	781	10	29.9		
0	805.96	217	439	1.94	806.19	800	12	40.9		
1	831.62	63	250	2.19	831.87	829	14	88.5	5.32E+00	
1	835.95	53	268	2.19	836.20	829	14	109.1		MN-54
0	910.77*	76	311	1.94	911.04	908	8	84.1		
0	934.04	422	359	1.89	934.32	929	11	20.0		
0	944.47	37	133	1.47	944.75	943		5100.0		
0	963.52	62	227	1.91	963.81	961	7	83.5		
0	1000.57*	93	262	3.05	1000.87	997	9	66.0		PA-234M
0	1014.46	42	150	1.82	1014.78	1013	6	96.5		
0	1070.04	50	117	1.92	1070.37	1068	5	71.4		
3	1101.73	36	93	1.94	1102.08	1100	8	81.2	6.20E-01	
3	1104.71	38	137	1.85	1105.05	1100		8107.6		
0	1120.12*	1722	321	2.20	1120.47	1116	12	6.4		BI-214
0	1155.39	191	223	2.39	1155.75	1151	10	32.7		
4	1233.91	25	57	2.63	1234.30	1233	9	79.2	8.15E+00	
4	1237.95*	566	159	1.98	1238.34	1233	9	10.9		
0	1280.88	164	179	2.05	1281.29	1277	8	32.3		
2	1377.34	469	109	2.34	1377.78	1370	21	11.8	1.91E+00	
2	1385.37*	93	102	2.74	1385.82	1370	21	46.0		
3	1401.37*	169	84	3.03	1401.82	1398	18	23.6	2.37E+00	
3	1407.68	270	84	2.41	1408.14	1398	18	16.4		
0	1433.95	20	63	1.61	1434.42	1432		5125.0		
0	1460.60*	844	260	2.56	1461.08	1454	14	10.7		K-40
0	1508.90	203	147	2.05	1509.40	1505	9	25.6		
0	1526.92	28	90	1.72	1527.43	1525		6113.6		
2	1538.14	52	132	2.61	1538.65	1533	17	79.6	1.54E+00	
2	1542.95	41	109	2.29	1543.46	1533	17	93.0		
3	1574.92	25	60	3.13	1575.45	1572	33	109.2	4.72E+00	
3	1594.97	48	77	2.85	1595.50	1572	33	74.5		
6	1657.38	12	26	3.18	1657.93	1656	11	138.7	3.28E+00	
6	1661.16	83	57	2.34	1661.71	1656	11	37.3		
0	1681.79	33	37	5.80	1682.36	1677	11	77.5		
0	1693.26	35	44	4.98	1693.83	1690	8	74.4		
0	1729.16	291	39	2.11	1729.74	1725	10	14.1		
0	1764.11*	1393	74	2.72	1764.71	1759	14	6.0		BI-214
4	1838.52	35	31	3.60	1839.14	1835	19	66.0	2.21E+00	
4	1846.93	228	26	2.76	1847.56	1835	19	15.2		
0	1896.26	21	19	3.28	1896.90	1893	7	84.1		
0	2016.90	19	31	4.43	2017.59	2012		10120.3		
0	2027.11	12	15	1.83	2027.80	2023		8129.2		
0	2033.35	14	9	3.25	2034.05	2031	7	88.0		
0	2118.11	105	14	3.05	2118.83	2114	10	23.9		
0	2203.40*	395	15	2.56	2204.16	2198	12	10.8		BI-214
0	2292.25	23	2	3.61	2293.04	2289	8	46.8		
0	2356.80	8	2	1.89	2357.61	2353	8	93.0		
0	2376.98	5	0	2.41	2377.80	2375	6	89.4		
0	2446.92	100	3	2.55	2447.77	2442	12	21.1		
0	2613.73*	54	3	3.47	2614.64	2609	10	31.3		TL-208
0	3051.07	7	0	1.98	3052.14	3047	9	75.6		
0	3220.06	5	0	2.31	3221.20	3218	6	89.4		

Total number of lines in spectrum 87
 Number of unidentified lines 50
 Number of lines tentatively identified by NID 37 42.53%

Nuclide Type : NATURAL

Nuclide	Hlife	Decay	Wtd Mean		Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
			Uncorrected pCi/GRAM	Decay Corr pCi/GRAM			
K-40	1.28E+09Y	1.00	3.132E+01	3.132E+01	0.481E+01	15.35	
TL-208	1.41E+10Y	1.00	8.070E-01	8.070E-01	2.358E-01	29.21	
PB-210	22.26Y	1.00	2.430E+01	2.437E+01	0.463E+01	19.00	
PB-212	1.41E+10Y	1.00	7.786E-01	7.786E-01	1.793E-01	23.03	
BI-214	1602.00Y	1.00	3.708E+01	3.708E+01	0.220E+01	5.94	
PB-214	1602.00Y	1.00	3.702E+01	3.702E+01	0.259E+01	7.00	
RN-219	3.28E+04Y	1.00	1.766E+00	1.766E+00	2.027E+00	114.78	
RA-224	1.41E+10Y	1.00	7.135E+01	7.135E+01	0.749E+01	10.50	
RA-226	1602.00Y	1.00	7.663E+01	7.663E+01	14.05E+01	183.29	
PA-234M	4.47E+09Y	1.00	3.073E+01	3.073E+01	2.052E+01	66.77	
TH-234	4.47E+09Y	1.00	2.707E+01	2.707E+01	0.566E+01	20.92	
Total Activity :			3.389E+02	3.389E+02			

Nuclide Type : ACTIVATION

Nuclide	Hlife	Decay	Wtd Mean		Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
			Uncorrected pCi/GRAM	Decay Corr pCi/GRAM			
MN-54	312.70D	1.08	1.390E-01	1.501E-01	1.644E-01	109.54	
Total Activity :			1.390E-01	1.501E-01			

Grand Total Activity : 3.390E+02 3.391E+02

Flags: "K" = Keyline not found
 "E" = Manually edited

"M" = Manually accepted
 "A" = Nuclide specific abn. limit

Nuclide Type: NATURAL

Nuclide	Energy	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error	Status
K-40	1460.81	10.67*	4.582E-01	3.132E+01	3.132E+01	15.35	OK
Final Mean for 1 Valid Peaks = 3.132E+01+/- 4.806E+00 (15.35%)							
TL-208	583.14	30.22*	9.242E-01	7.972E-01	7.972E-01	61.22	OK
	860.37	4.48	6.742E-01	-----	Line Not Found	-----	Absent
	2614.66	35.85	3.402E-01	8.100E-01	8.100E-01	33.24	OK
Final Mean for 2 Valid Peaks = 8.070E-01+/- 2.358E-01 (29.21%)							
PB-210	46.50	4.05*	2.204E+00	2.430E+01	2.437E+01	19.00	OK
Final Mean for 1 Valid Peaks = 2.437E+01+/- 4.630E+00 (19.00%)							
PB-212	238.63	44.60*	1.817E+00	7.786E-01	7.786E-01	23.03	OK
	300.09	3.41	1.555E+00	-----	Line Not Found	-----	Absent
Final Mean for 1 Valid Peaks = 7.786E-01+/- 1.793E-01 (23.03%)							
BI-214	609.31	46.30*	8.915E-01	3.472E+01	3.472E+01	10.12	OK
	1120.29	15.10	5.508E-01	3.755E+01	3.755E+01	11.96	OK
	1764.49	15.80	4.084E-01	3.916E+01	3.916E+01	11.69	OK
	2204.22	4.98	3.644E-01	3.953E+01	3.954E+01	15.14	OK
Final Mean for 4 Valid Peaks = 3.708E+01+/- 2.202E+00 (5.94%)							
PB-214	295.21	19.19	1.574E+00	3.646E+01	3.646E+01	9.92	OK
	351.92	37.19*	1.383E+00	3.761E+01	3.761E+01	9.88	OK
Final Mean for 2 Valid Peaks = 3.702E+01+/- 2.592E+00 (7.00%)							
RN-219	401.80	6.50*	1.248E+00	1.766E+00	1.766E+00	114.78	OK
Final Mean for 1 Valid Peaks = 1.766E+00+/- 2.027E+00 (114.78%)							
RA-224	240.98	3.95*	1.806E+00	7.135E+01	7.135E+01	10.50	OK
Final Mean for 1 Valid Peaks = 7.135E+01+/- 7.493E+00 (10.50%)							
RA-226	186.21	3.28*	2.099E+00	7.663E+01	7.663E+01	183.29	OK
Final Mean for 1 Valid Peaks = 7.663E+01+/- 1.405E+02 (183.29%)							
PA-234M	1001.03	0.92*	5.993E-01	3.073E+01	3.073E+01	66.77	OK
Final Mean for 1 Valid Peaks = 3.073E+01+/- 2.052E+01 (66.77%)							
TH-234	63.29	3.80*	2.516E+00	2.707E+01	2.707E+01	20.92	OK
Final Mean for 1 Valid Peaks = 2.707E+01+/- 5.664E+00 (20.92%)							

Sample ID : 1111068-08

Acquisition date : 11-DEC-2011 14:30:41

Nuclide Type: ACTIVATION

Nuclide	Energy	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error	Status
MN-54	834.83	99.97*	6.905E-01	1.390E-01	1.501E-01	109.54	OK

Final Mean for 1 Valid Peaks = 1.501E-01+/- 1.644E-01 (109.54%)

Flag: "*" = Keyline

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.132E+01	4.806E+00	1.998E+00	2.048E-01	15.679
MN-54	1.501E-01	1.644E-01	2.204E-01	1.979E-02	0.681
TL-208	8.070E-01	2.358E-01	5.741E-01	5.224E-02	1.406
PB-210	2.437E+01	4.630E+00	4.447E+00	3.728E-01	5.480
PB-212	7.786E-01	1.793E-01	4.053E-01	3.334E-02	1.921
BI-214	3.708E+01	2.202E+00	3.655E-01	3.280E-02	101.466
PB-214	3.702E+01	2.592E+00	4.437E-01	3.886E-02	83.429
RN-219	1.766E+00	2.027E+00	2.786E+00	2.508E-01	0.634
RA-224	7.135E+01	7.493E+00	4.617E+00	3.799E-01	15.454
RA-226	7.663E+01	1.405E+02	5.356E+00	9.807E+00	14.308
PA-234M	3.073E+01	2.052E+01	2.292E+01	2.104E+00	1.341
TH-234	2.707E+01	5.664E+00	5.218E+00	4.346E-01	5.188

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	4.425E-01		1.651E+00	2.615E+00	2.418E-01	0.169
NA-22	6.227E-02		1.396E-01	2.164E-01	2.132E-02	0.288
AL-26	1.540E-02		7.079E-02	1.341E-01	1.212E-02	0.115
TI-44	-7.355E-02		1.592E-01	2.150E-01	2.016E-02	-0.342
SC-46	2.123E-02		1.672E-01	2.856E-01	2.560E-02	0.074
V-48	-2.117E-01		5.613E-01	9.328E-01	8.537E-02	-0.227
CR-51	-2.230E+00		2.526E+00	3.905E+00	3.517E-01	-0.571
CO-56	-1.983E-02		1.828E-01	2.769E-01	2.486E-02	-0.072
CO-57	-6.591E-02		1.189E-01	1.936E-01	1.642E-02	-0.340
CO-58	1.151E-01		1.756E-01	2.786E-01	2.503E-02	0.413
FE-59	-1.858E-03		4.305E-01	6.472E-01	6.427E-02	-0.003
CO-60	6.689E-02		1.381E-01	2.386E-01	2.213E-02	0.280
ZN-65	8.838E-01		3.636E-01	6.038E-01	5.608E-02	1.464
SE-75	-4.201E-02		2.616E-01	3.356E-01	2.781E-02	-0.125
RB-82	7.588E-01		2.824E+00	3.529E+00	3.149E-01	0.215
RB-83	-1.386E-02		2.794E-01	4.640E-01	7.421E-02	-0.030
KR-85	3.557E+01		2.541E+01	4.158E+01	3.851E+00	0.855
SR-85	2.238E-01		1.598E-01	2.616E-01	2.423E-02	0.855
Y-88	8.218E-02		1.238E-01	2.140E-01	1.910E-02	0.384
NB-93M	1.728E+01		6.971E+00	8.220E+00	2.475E+00	2.102
NB-94	-8.182E-02		1.184E-01	1.950E-01	1.750E-02	-0.420
NB-95	2.324E+00		4.036E-01	6.374E-01	5.682E-02	3.646
ZR-95	-3.292E-01		2.888E-01	4.675E-01	4.554E-02	-0.704
RU-103	-1.545E-01		2.149E-01	3.244E-01	4.724E-02	-0.476
RU-106	-6.432E-01		1.003E+00	1.686E+00	2.283E-01	-0.382
AG-108M	2.207E-02		1.295E-01	2.015E-01	1.776E-02	0.110
CD-109	1.653E+01		4.802E+00	6.470E+00	9.983E-01	2.554
AG-110M	4.430E-02		1.201E-01	1.906E-01	1.649E-02	0.232
SN-113	1.347E-01		2.104E-01	3.382E-01	3.114E-02	0.398
TE123M	1.157E-01		1.668E-01	2.538E-01	2.042E-02	0.456
SB-124	5.346E-02		1.775E-01	2.791E-01	2.515E-02	0.192

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
I-125	-3.169E+00		2.635E+00	4.288E+00	4.398E-01	-0.739
SB-125	5.158E-01	+	5.780E-01	6.574E-01	6.099E-02	0.785
SB-126	2.914E+00	+	1.760E+00	2.554E+00	2.250E-01	1.141
SN-126	1.240E+00		4.212E-01	6.062E-01	8.568E-02	2.046
I-129	3.997E-02		2.373E-01	4.058E-01	4.974E-02	0.098
I-131	-8.959E-01		2.197E+00	3.820E+00	3.372E-01	-0.235
BA-133	1.990E-01		1.818E-01	2.736E-01	3.641E-02	0.727
CS-134	1.659E-01		1.325E-01	2.147E-01	1.936E-02	0.773
CS-135	1.930E+00		7.588E-01	1.165E+00	9.575E-02	1.657
CS-136	-3.278E-01		9.738E-01	1.616E+00	1.534E-01	-0.203
CS-137	4.636E-02		1.285E-01	2.034E-01	1.757E-02	0.228
LA-138	9.605E-02		2.062E-01	3.195E-01	3.221E-02	0.301
CE-139	-8.207E-02		1.551E-01	2.498E-01	1.988E-02	-0.329
BA-140	8.608E-01		2.558E+00	4.464E+00	1.487E+00	0.193
LA-140	1.323E+00		8.378E-01	1.608E+00	1.569E-01	0.823
CE-141	4.233E-01		5.086E-01	7.599E-01	1.968E-01	0.557
CE-144	-1.179E+00		9.955E-01	1.591E+00	1.326E-01	-0.741
PM-144	-3.511E-03		1.195E-01	1.838E-01	1.609E-02	-0.019
PM-145	-5.766E-01		6.380E-01	8.460E-01	5.522E-01	-0.682
PM-146	4.194E-01	+	4.060E-01	4.411E-01	4.059E-02	0.951
ND-147	3.512E+00		6.487E+00	1.146E+01	1.060E+00	0.306
EU-152	7.022E+00	+	1.461E+00	2.305E+00	2.796E-01	3.046
GD-153	-9.173E-01		4.658E-01	7.230E-01	8.429E-02	-1.269
EU-154	1.685E-01		3.858E-01	5.976E-01	5.890E-02	0.282
EU-155	3.607E+00		6.777E-01	7.386E-01	1.024E-01	4.884
EU-156	3.382E+00		5.782E+00	9.079E+00	2.086E+00	0.373
HO-166M	-4.376E-03		2.213E-01	3.123E-01	2.743E-02	-0.014
HF-172	-7.126E-01		8.782E-01	1.420E+00	1.196E-01	-0.502
LU-172	5.985E+00		7.436E+00	1.250E+01	1.159E+00	0.479
LU-173	1.761E+00		6.981E-01	9.550E-01	7.843E-02	1.844
HF-175	5.003E-02		2.239E-01	2.881E-01	2.508E-02	0.174
LU-176	-1.683E-02		1.099E-01	1.745E-01	1.472E-02	-0.096
TA-182	2.005E+01	+	2.399E+00	2.384E+00	2.212E-01	8.412
IR-192	-3.207E-02		2.984E-01	4.668E-01	4.309E-02	-0.069
HG-203	1.216E-01		2.395E-01	3.578E-01	3.025E-02	0.340
BI-207	6.992E-02		1.035E-01	1.829E-01	1.674E-02	0.382
BI-210M	5.430E-02		2.472E-01	3.671E-01	3.021E-02	0.148
PB-211	1.558E+00		4.064E+00	6.471E+00	5.836E-01	0.241
BI-212	4.060E-01		9.860E-01	1.553E+00	1.371E-01	0.261
RA-223	2.387E+00		2.903E+00	4.356E+00	3.734E-01	0.548
RA-225	-2.477E+00		1.843E+00	2.795E+00	2.595E-01	-0.886
TH-227	1.992E+00		1.095E+00	1.667E+00	1.371E-01	1.195
AC-228	7.714E-01	+	6.531E-01	8.699E-01	7.823E-02	0.887
TH-230	-2.374E+01		4.056E+01	5.464E+01	5.097E+00	-0.434
PA-231	4.320E+00		4.921E+00	7.400E+00	6.220E-01	0.584
TH-231	6.536E-03		1.130E+00	1.904E+00	2.804E-01	0.003
PA-233	-2.304E-01		6.510E-01	1.024E+00	2.294E-01	-0.225
PA-234	4.417E-02		4.732E-01	7.775E-01	6.502E-02	0.057

----- Non-Identified Nuclides -----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
U-235	2.499E+00	+	1.507E+00	1.695E+00	2.934E-01	1.474
NP-237	8.732E+00		1.640E+00	1.787E+00	2.478E-01	4.885
AM-241	6.016E-01		3.379E-01	5.337E-01	3.993E-02	1.127
AM-243	4.204E+00		5.399E-01	4.342E-01	4.759E-02	9.683
CM-243	1.095E-01		8.035E-01	1.188E+00	9.741E-02	0.092

Total number of lines in spectrum 87
 Number of unidentified lines 50
 Number of lines tentatively identified by NID 37 42.53%

Nuclide Type : NATURAL

Nuclide	Hlife	Decay	Wtd Mean		Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
			Uncorrected pCi/GRAM	Decay Corr pCi/GRAM			
K-40	1.28E+09Y	1.00	3.132E+01	3.132E+01	0.481E+01	15.35	
TL-208	1.41E+10Y	1.00	8.070E-01	8.070E-01	2.358E-01	29.21	
PB-210	22.26Y	1.00	2.430E+01	2.437E+01	0.463E+01	19.00	
PB-212	1.41E+10Y	1.00	7.786E-01	7.786E-01	1.793E-01	23.03	
BI-214	1602.00Y	1.00	3.708E+01	3.708E+01	0.220E+01	5.94	
PB-214	1602.00Y	1.00	3.702E+01	3.702E+01	0.259E+01	7.00	
RN-219	3.28E+04Y	1.00	1.766E+00	1.766E+00	2.027E+00	114.78	
RA-224	1.41E+10Y	1.00	7.135E+01	7.135E+01	0.749E+01	10.50	
RA-226	1602.00Y	1.00	7.663E+01	7.663E+01	14.05E+01	183.29	
PA-234M	4.47E+09Y	1.00	3.073E+01	3.073E+01	2.052E+01	66.77	
TH-234	4.47E+09Y	1.00	2.707E+01	2.707E+01	0.566E+01	20.92	
Total Activity :			3.389E+02	3.389E+02			

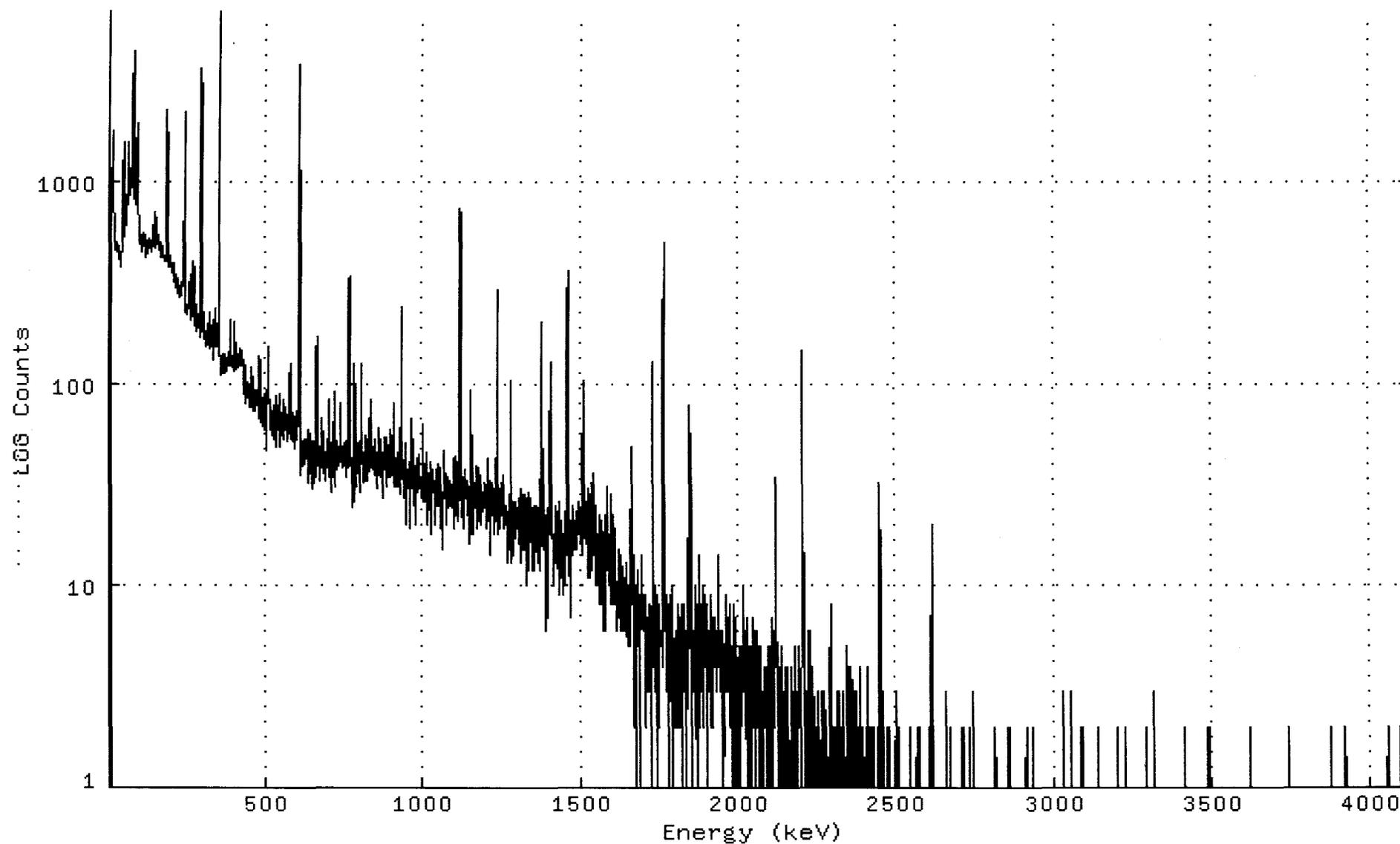
Nuclide Type : ACTIVATION

Nuclide	Hlife	Decay	Wtd Mean		Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
			Uncorrected pCi/GRAM	Decay Corr pCi/GRAM			
MN-54	312.70D	1.08	1.390E-01	1.501E-01	1.644E-01	109.54	
Total Activity :			1.390E-01	1.501E-01			

Grand Total Activity : 3.390E+02 3.391E+02

Flags: "K" = Keyline not found "M" = Manually accepted
 "E" = Manually edited "A" = Nuclide specific abn. limit

Spectrum : DKA100:[GAMMA.SCUSR.ARCHIVE]SMP_111106808_GE2_GAS1102_172288.CNF;1
Title :
Sample Title: S12-12-31-111107
Start Time: 11-DEC-2011 14:30 Sample Time: 7-NOV-2011 00:00: Energy Offset: 6.87229E-02
Real Time : 0 01:00:05.70 Sample ID : 1111068-08 Energy Slope : 9.99625E-01
Live Time : 0 01:00:00.00 Sample Type: SOIL Energy Quad : 0.00000E+00



Channel Contents for DKA100:[GAMMA.SCUSR.ARCHIVE]SMP_111106808_GE2_GAS1102_1722

Channel

1:	0	0	0	0	0	0	1	28
9:	466	859	1513	1448	952	978	1777	832
17:	557	491	515	451	454	472	444	473
25:	449	471	479	496	439	468	436	454
33:	445	407	386	438	446	429	376	436
41:	444	481	525	508	496	1016	1558	576
49:	530	699	663	595	846	828	603	653
57:	714	721	775	849	840	961	1557	1540
65:	869	841	949	1079	872	965	994	921
73:	1041	1305	3347	1671	4364	2932	949	921
81:	960	825	768	1392	856	753	1615	1549
89:	805	1143	773	1048	1912	816	773	569
97:	488	555	589	506	500	444	463	483
105:	472	497	537	469	515	531	552	513
113:	555	531	475	491	416	511	459	431
121:	445	463	505	461	484	470	474	498
129:	518	515	459	471	468	505	443	487
137:	467	535	477	490	506	507	528	704
145:	548	473	461	480	514	543	486	524
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1993:	5	4	3	2	4	0	2	2
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2017:	10	5	6	3	2	2	4	3
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2057:	4	5	5	2	3	4	4	5
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2073:	1	1	3	3	2	3	2	4
2081:	3	2	2	2	2	2	4	1
2089:	1	4	3	2	5	3	2	4
2097:	1	3	2	0	3	5	1	6
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2137:	1	5	0	1	1	1	3	3
2145:	2	1	1	3	2	4	3	2
2153:	3	2	4	0	1	0	0	0
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2169:	2	2	3	3	1	3	2	1
2177:	1	5	2	3	0	3	2	0
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2265:	1	0	3	3	1	2	0	3
2273:	2	0	0	1	1	0	2	1
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2313:	1	1	3	1	3	1	1	2
2321:	2	1	1	1	0	0	2	2
2329:	0	2	3	2	2	1	0	1
2337:	1	1	1	1	0	0	1	0
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3273:	0	0	1	0	0	0	0	0
3281:	0	0	1	1	0	0	1	0
3289:	0	2	0	0	0	0	0	1
3297:	0	0	0	0	0	1	0	0
3305:	0	0	0	0	1	0	0	3

3313:	1	1	0	0	0	0	0	0	0
3321:	0	0	0	0	0	0	0	0	1
3329:	0	0	0	0	0	0	0	0	0
3337:	0	0	0	0	0	0	0	0	0
3345:	0	0	1	0	0	0	0	0	0
3353:	0	0	0	0	0	0	0	0	1
3361:	0	0	0	0	0	0	0	0	0
3369:	0	1	0	0	1	1	0	0	0
3377:	0	0	0	0	1	0	0	0	1
3385:	0	0	0	0	0	0	0	0	0
3393:	0	0	0	0	0	0	0	0	0
3401:	0	1	0	0	0	0	0	0	0
3409:	0	0	1	2	0	0	0	0	0
3417:	0	0	0	0	0	1	0	0	0
3425:	0	0	0	0	0	1	1	0	0
3433:	0	1	0	0	0	0	0	0	0
3441:	0	0	0	0	0	0	0	0	0
3449:	0	0	0	0	0	0	0	0	0
3457:	0	0	0	0	0	0	0	0	0
3465:	0	0	0	1	0	0	1	0	0
3473:	0	0	0	0	0	0	0	0	0
3481:	1	0	1	0	2	0	0	0	0
3489:	1	2	0	0	0	0	0	0	0
3497:	0	0	0	0	0	0	0	0	0
3505:	1	0	0	0	0	1	0	0	0
3513:	0	0	0	0	1	1	0	0	0
3521:	0	0	0	0	0	0	0	0	1
3529:	0	1	0	0	0	0	0	0	0
3537:	0	0	0	1	0	0	0	0	0
3545:	0	0	0	1	0	0	0	0	1
3553:	0	0	0	0	1	0	0	0	1
3561:	0	0	0	0	0	0	0	0	0
3569:	0	0	0	0	1	0	0	0	0
3577:	0	0	0	0	0	0	1	0	0
3585:	0	0	0	0	0	0	0	0	0
3593:	0	0	0	0	0	0	0	0	0
3601:	0	0	0	0	0	0	0	0	0
3609:	0	1	0	0	0	0	0	0	2
3617:	0	0	1	0	0	1	0	0	0
3625:	0	0	0	0	0	1	0	0	0
3633:	0	0	0	0	1	0	0	0	0
3641:	0	0	0	1	0	1	1	0	0
3649:	0	0	0	0	0	0	0	0	0
3657:	0	0	0	0	0	1	0	0	0
3665:	1	0	0	0	0	0	0	0	0
3673:	0	0	0	0	0	0	0	0	0
3681:	0	0	0	0	1	0	0	0	0
3689:	0	0	0	0	1	0	0	0	1
3697:	0	1	0	0	0	0	0	0	0
3705:	0	0	0	0	1	0	0	0	0
3713:	0	0	0	0	0	0	0	0	0
3721:	0	0	0	0	1	0	0	0	0
3729:	0	1	0	0	1	0	0	0	0
3737:	0	0	2	0	0	0	0	0	1
3745:	0	0	0	0	1	0	0	0	0
3753:	0	0	0	0	0	0	0	0	0
3761:	0	0	0	0	0	0	0	0	0
3769:	0	1	0	0	0	1	0	0	0
3777:	1	0	0	0	1	0	0	0	0
3785:	0	0	0	0	0	0	0	0	0

3793:	0	0	0	0	0	0	0	0
3801:	0	0	0	0	0	0	1	0
3809:	1	0	0	0	0	1	0	0
3817:	0	0	1	0	0	0	0	0
3825:	0	0	0	0	0	0	0	1
3833:	0	0	0	0	0	0	0	0
3841:	0	0	0	0	0	0	0	0
3849:	0	0	0	0	0	0	1	0
3857:	0	0	1	0	0	0	1	1
3865:	0	0	0	0	0	1	0	2
3873:	0	0	0	0	0	0	0	0
3881:	0	0	0	0	1	0	0	0
3889:	0	0	0	1	0	0	0	0
3897:	0	1	0	0	0	0	0	0
3905:	0	0	0	0	0	0	0	0
3913:	1	0	0	0	2	0	0	0
3921:	0	0	0	0	0	0	1	0
3929:	0	0	0	0	1	0	0	0
3937:	0	1	0	0	0	0	0	0
3945:	0	0	1	0	1	0	0	0
3953:	0	1	0	1	0	0	0	1
3961:	0	0	1	0	1	0	0	0
3969:	1	0	0	1	0	0	0	0
3977:	1	0	0	0	0	0	0	0
3985:	0	0	0	0	0	0	1	0
3993:	0	0	0	1	1	0	0	0
4001:	0	0	0	0	0	0	0	0
4009:	0	0	0	0	1	0	0	0
4017:	0	0	0	0	0	0	0	0
4025:	0	0	0	0	0	0	0	0
4033:	0	0	0	0	1	0	0	1
4041:	0	0	0	0	0	1	0	1
4049:	0	0	2	0	0	0	0	1
4057:	0	0	0	0	0	0	0	0
4065:	0	0	0	1	0	0	0	0
4073:	0	0	0	0	0	0	0	0
4081:	0	0	0	0	1	0	0	0
4089:	2	0	0	0	0	0	0	0

Sample ID : 1111068-09

Acquisition date : 11-DEC-2011 14:31:32

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12/11/11

VAX/VMS Peak Search Report Generated 11-DEC-2011 15:32:44.35

Configuration : DKA100: [GAMMA.SCUSR.ARCHIVE] SMP_111106809_GE3_GAS1102_172289.
 Analyses by : PEAK V16.9 ENBACK V1.6 PEAKEFF V2.2
 Client ID : S12-14-31-111107
 Deposition Date :
 Sample Date : 7-NOV-2011 00:00:00. Acquisition date : 11-DEC-2011 14:31:32
 Sample ID : 1111068-09 Sample Quantity : 4.32200E+02 GRAM
 Sample type : SOIL Sample Geometry : 0
 Detector name : GE3 Detector Geometry: GAS-1102
 Elapsed live time: 0 01:00:00.00 Elapsed real time: 0 01:00:54.28 1.5%
 Start channel : 5 End channel : 4096
 Sensitivity : 2.40000 Gaussian : 15.00000
 Critical level : Yes

Post-NID Peak Search Report

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides
0	16.48	503	5761	1.71	16.76	15	6	48.8		NB-93M
0	27.34*	150	3383	1.27	27.62	26	4	111.1		
0	32.13	201	3542	1.67	32.41	31	4	84.8		
0	46.61*	3240	7086	1.14	46.89	44	6	8.9		PB-210
0	53.65	732	7185	1.11	53.93	52	5	35.5		
0	63.49*	2479	11916	1.18	63.77	61	6	14.5		TH-234
0	67.77	627	8274	1.20	68.05	67	4	41.8		TI-44
3	74.94*	7554	10839	1.64	75.22	72	10	5.1	1.30E+03	AM-243
3	77.71*	15374	11240	1.64	77.99	72	10	2.7		TI-44
0	87.41	373	10172	0.89	87.69	86	4	73.6		NP-237 SN-126 CD-109
0	93.45*	3122	10005	1.25	93.73	91	6	11.0		
0	112.99*	223	5653	1.93	113.27	112	5	102.3		
0	144.25*	810	6699	1.91	144.53	142	6	32.8		U-235 CE-141
0	154.65	409	6909	1.12	154.93	153	6	65.2		
0	163.81*	307	5941	1.55	164.10	162	6	80.5		U-235
0	186.45*	6550	8237	1.52	186.74	183	9	5.6		RA-226
2	237.01	975	2973	1.74	237.30	232	15	18.0	4.69E+01	
2	242.43*	6575	2245	1.34	242.72	232	15	3.2		RA-224
0	258.29	763	4518	4.07	258.58	254	9	32.6		
7	270.49*	1270	3761	2.60	270.78	267	12	17.6	1.36E+01	
7	274.78	469	3703	2.62	275.08	267	12	47.1		
0	286.64	194	2208	1.79	286.93	285	5	74.2		
0	295.60*	13612	3599	1.27	295.90	292	8	2.3		PB-214
0	301.37	204	2493	1.32	301.66	300	6	79.0		
0	324.34	175	1666	1.44	324.64	323	5	71.4		RA-223
0	329.52	172	1755	2.80	329.82	328	5	74.6		
0	338.84*	172	2135	1.22	339.13	337	6	86.2		
0	352.30*	23339	3209	1.80	352.60	348	10	1.6		PB-214
0	388.69	266	1970	3.64	388.99	385	7	56.8		
1	402.86	318	1362	1.75	403.16	399	11	36.9	1.42E+01	RN-219
0	455.81	180	1530	2.24	456.12	452	8	76.8		
0	462.15	124	1276	1.45	462.46	460	7	97.4		
2	475.00	157	645	1.99	475.31	473	12	47.4	2.50E+00	

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12/12/11

Sample ID : 1111068-09

Acquisition date : 11-DEC-2011 14:31:32

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides
2	480.66	258	887	1.99	480.97	473	12	39.5		
0	486.93	194	923	1.28	487.24	485	6	51.4		
0	498.02	82	844	3.30	498.33	496	6	114.5		RU-103
0	510.78*	415	1426	2.74	511.09	506	11	36.8		
0	533.84	139	984	2.08	534.15	531	7	76.8		
1	580.52	147	735	1.88	580.83	578	10	60.8	2.75E+00	
1	583.67*	209	688	1.89	583.98	578	10	43.4		TL-208
0	609.73*	16201	1307	1.47	610.04	605	10	1.8		BI-214
0	665.35	483	883	1.48	665.67	661	10	24.7		
0	703.94	180	687	2.35	704.26	701	8	52.7		
0	719.88	108	711	1.86	720.20	717	9	90.9		
0	743.82	59	493	1.24	744.14	740	6	121.9		
0	768.65	1492	653	1.55	768.97	765	8	7.9		
0	775.73	51	387	2.07	776.06	774	5	119.8		RB-82
0	786.75	259	610	2.01	787.08	783	7	34.0		
0	806.55	359	793	1.60	806.87	803	10	31.2		
0	820.95	59	493	2.60	821.27	819	6	121.2		
0	839.30	228	738	1.68	839.63	836	9	45.2		
0	934.32	725	738	1.91	934.65	931	9	15.4		
0	945.81	75	466	3.84	946.15	943	7	98.8		
0	964.50	141	365	2.24	964.84	962	6	46.1		
0	969.14	79	336	1.78	969.48	968	5	73.2		
0	990.70	70	321	3.32	991.04	989	6	84.5		
0	1054.58	70	452	4.86	1054.93	1051	8	107.9		
0	1070.05	67	393	2.78	1070.39	1067	7	102.1		
0	1120.79*	3236	576	1.97	1121.14	1116	11	4.5		BI-214
0	1135.10	63	300	2.02	1135.45	1132	6	90.6		
0	1155.80	357	525	1.90	1156.15	1151	11	27.1		
0	1183.86	99	522	3.36	1184.21	1178	11	91.8		
0	1208.40	69	359	1.66	1208.76	1205	8	99.3		
0	1217.37	59	385	3.11	1217.72	1214	9	122.7		
0	1238.58*	1183	426	1.78	1238.94	1234	9	8.6		
0	1254.25	91	345	3.86	1254.61	1251	8	74.2		
0	1281.69	253	380	2.37	1282.04	1278	9	30.5		
4	1378.16	788	232	2.11	1378.52	1374	17	9.3	9.84E-01	
4	1385.61	192	277	2.65	1385.97	1374	17	33.9		
1	1401.85	241	248	2.34	1402.21	1398	16	25.6	1.47E+00	
1	1408.51	404	230	2.14	1408.87	1398	16	15.3		
0	1425.11	62	244	1.85	1425.47	1422	8	91.8		
0	1461.28*	591	416	2.06	1461.65	1457	11	15.7		K-40
0	1509.91	405	334	2.23	1510.28	1506	9	19.1		
4	1539.64	106	258	3.20	1540.02	1536	12	56.6	8.30E-01	
4	1543.95	97	220	2.33	1544.32	1536	12	56.0		
0	1584.24	160	306	2.29	1584.61	1579	13	48.5		
0	1662.16	209	121	2.24	1662.54	1659	9	23.5		
5	1685.19	47	80	3.61	1685.58	1682	25	67.2	1.57E+00	
5	1693.36	73	114	3.62	1693.75	1682	25	62.4		
0	1730.24	554	123	2.33	1730.63	1726	11	11.5		
0	1765.13	2547	104	2.42	1765.51	1761	11	4.3		BI-214
0	1839.91	74	75	1.90	1840.30	1835	11	50.5		
0	1848.19	319	63	2.39	1848.58	1845	8	14.2		

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides
0	1874.20	53	130	2.31	1874.59	1868	14	95.5		
5	2007.10	18	22	2.86	2007.50	2001	22126.7		4.65E+00	
5	2011.12	23	28	3.09	2011.52	2001	22103.2			
5	2014.60	15	26	2.36	2015.00	2001	22127.7			
3	2050.38	12	13	3.16	2050.79	2048	12103.0		1.61E+00	
3	2055.39	21	23	3.17	2055.79	2048	12	97.9		
0	2110.66	19	26	2.73	2111.07	2109	7	99.8		
0	2119.38*	148	35	2.84	2119.79	2115	10	22.3		
0	2176.81	15	9	3.95	2177.22	2174	7	81.0		
0	2204.69*	677	63	2.53	2205.11	2198	14	9.2		BI-214
0	2238.57	16	8	4.02	2238.98	2234	10	79.9		
0	2294.86	45	18	2.49	2295.28	2290	10	47.6		
0	2448.48	198	10	2.95	2448.90	2442	13	15.6		
0	2614.94	58	7	2.40	2615.38	2610	10	31.6		TL-208

Total number of lines in spectrum 98
 Number of unidentified lines 54
 Number of lines tentatively identified by NID 44 44.90%

Nuclide Type : NATURAL

Nuclide	Hlife	Decay	Wtd Mean		Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
			Uncorrected pCi/GRAM	Decay Corr pCi/GRAM			
K-40	1.28E+09Y	1.00	2.540E+01	2.540E+01	0.470E+01	18.50	
TL-208	1.41E+10Y	1.00	1.031E+00	1.031E+00	0.281E+00	27.29	
PB-210	22.26Y	1.00	7.942E+01	7.966E+01	1.119E+01	14.05	
BI-214	1602.00Y	1.00	7.974E+01	7.974E+01	0.459E+01	5.75	
PB-214	1602.00Y	1.00	8.426E+01	8.426E+01	0.581E+01	6.90	
RN-219	3.28E+04Y	1.00	7.487E+00	7.487E+00	2.868E+00	38.30	
RA-223	3.28E+04Y	1.00	5.728E+00	5.728E+00	4.127E+00	72.05	
RA-224	1.41E+10Y	1.00	1.670E+02	1.670E+02	0.173E+02	10.37	
RA-226	1602.00Y	1.00	1.694E+02	1.694E+02	3.106E+02	183.32	
TH-234	4.47E+09Y	1.00	5.109E+01	5.109E+01	0.898E+01	17.58	
U-235	7.04E+08Y	1.00	5.174E+00	5.174E+00	4.295E+00	82.99	
Total Activity :			6.757E+02	6.760E+02			

Nuclide Type : ACTIVATION

Nuclide	Hlife	Decay	Wtd Mean		Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
			Uncorrected pCi/GRAM	Decay Corr pCi/GRAM			
TI-44	63.00Y	1.00	5.024E-01	5.029E-01	2.171E-01	43.16	
RB-82	25.55D	2.56	1.106E+00	2.829E+00	3.401E+00	120.25	
AM-243	7380.00Y	1.00	8.342E+00	8.342E+00	1.118E+00	13.40	
Total Activity :			9.950E+00	1.167E+01			

Nuclide Type : FISSION

Nuclide	Hlife	Decay	Wtd Mean		Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
			Uncorrected pCi/GRAM	Decay Corr pCi/GRAM			
NB-93M	14.60Y	1.00	3.890E+01	3.907E+01	3.465E+01	88.69	
RU-103	39.35D	1.84	1.715E-01	3.157E-01	3.649E-01	115.58	
CD-109	464.00D	1.05	7.037E+00	7.411E+00	5.588E+00	75.41	
SN-126	1.00E+05Y	1.00	7.080E-01	7.080E-01	5.321E-01	75.15	
CE-141	32.50D	2.09	1.261E+00	2.639E+00	1.123E+00	42.55	
NP-237	2.14E+06Y	1.00	2.083E+00	2.083E+00	1.564E+00	75.10	
Total Activity :			5.016E+01	5.223E+01			

Grand Total Activity : 7.358E+02 7.399E+02

Flags: "K" = Keyline not found "M" = Manually accepted
 "E" = Manually edited "A" = Nuclide specific abn. limit

Nuclide Type: NATURAL

Nuclide	Energy	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error	Status
K-40	1460.81	10.67*	3.789E-01	2.540E+01	2.540E+01	18.50	OK
Final Mean for 1 Valid Peaks = 2.540E+01+/- 4.699E+00 (18.50%)							
TL-208	583.14	30.22*	8.029E-01	1.495E+00	1.495E+00	44.71	OK
	860.37	4.48	5.645E-01	----- Line Not Found		-----	Absent
	2614.66	35.85	3.019E-01	9.309E-01	9.309E-01	33.32	OK
Final Mean for 2 Valid Peaks = 1.031E+00+/- 2.814E-01 (27.29%)							
PB-210	46.50	4.05*	1.750E+00	7.942E+01	7.966E+01	14.05	OK
Final Mean for 1 Valid Peaks = 7.966E+01+/- 1.119E+01 (14.05%)							
BI-214	609.31	46.30*	7.707E-01	7.886E+01	7.886E+01	10.71	OK
	1120.29	15.10	4.552E-01	8.178E+01	8.178E+01	11.50	OK
	1764.49	15.80	3.416E-01	8.199E+01	8.199E+01	10.69	OK
	2204.22	4.98	3.132E-01	7.538E+01	7.538E+01	13.85	OK
Final Mean for 4 Valid Peaks = 7.974E+01+/- 4.588E+00 (5.75%)							
PB-214	295.21	19.19	1.480E+00	8.323E+01	8.324E+01	9.52	OK
	351.92	37.19*	1.276E+00	8.546E+01	8.546E+01	10.02	OK
Final Mean for 2 Valid Peaks = 8.426E+01+/- 5.815E+00 (6.90%)							
RN-219	401.80	6.50*	1.133E+00	7.487E+00	7.487E+00	38.30	OK
Final Mean for 1 Valid Peaks = 7.487E+00+/- 2.868E+00 (38.30%)							
RA-223	323.87	3.88*	1.370E+00	5.728E+00	5.728E+00	72.05	OK
Final Mean for 1 Valid Peaks = 5.728E+00+/- 4.127E+00 (72.05%)							
RA-224	240.98	3.95*	1.732E+00	1.670E+02	1.670E+02	10.37	OK
Final Mean for 1 Valid Peaks = 1.670E+02+/- 1.731E+01 (10.37%)							
RA-226	186.21	3.28*	2.048E+00	1.694E+02	1.694E+02	183.32	OK
Final Mean for 1 Valid Peaks = 1.694E+02+/- 3.106E+02 (183.32%)							
TH-234	63.29	3.80*	2.218E+00	5.109E+01	5.109E+01	17.58	OK
Final Mean for 1 Valid Peaks = 5.109E+01+/- 8.982E+00 (17.58%)							
U-235	143.76	10.50*	2.314E+00	5.787E+00	5.787E+00	37.95	<<WM Interf
	163.35	4.70	2.193E+00	5.174E+00	5.174E+00	82.99	OK
	205.31	4.70	1.931E+00	----- Line Not Found		-----	Absent
Final Mean for 1 Valid Peaks = 5.174E+00+/- 4.295E+00 (82.99%)							

Nuclide Type: ACTIVATION

Nuclide	Energy	%Abn	%Eff	Uncorrected Decay Corr 2-Sigma		%Error	Status
				pCi/GRAM	pCi/GRAM		
TI-44	67.88	94.40*	2.297E+00	5.024E-01	5.029E-01	43.16	OK
	78.34	96.00	2.417E+00	1.151E+01	1.152E+01	13.49	<<WM N-Sigma
Final Mean for 1 Valid Peaks =				5.029E-01+/- 2.171E-01 (43.16%)			
RB-82	776.52	13.00*	6.177E-01	1.106E+00	2.829E+00	120.25	OK
	Final Mean for 1 Valid Peaks =				2.829E+00+/- 3.401E+00 (120.25%)		
AM-243	74.67	66.00*	2.383E+00	8.342E+00	8.342E+00	13.40	OK
	Final Mean for 1 Valid Peaks =				8.342E+00+/- 1.118E+00 (13.40%)		

Nuclide Type: FISSION

Nuclide	Energy	%Abn	%Eff	Uncorrected Decay Corr 2-Sigma		%Error	Status
				pCi/GRAM	pCi/GRAM		
NB-93M	16.57	9.43*	2.383E-01	3.890E+01	3.907E+01	88.69	OK
	Final Mean for 1 Valid Peaks =				3.907E+01+/- 3.465E+01 (88.69%)		
RU-103	497.08	89.00*	9.318E-01	1.715E-01	3.157E-01	115.58	OK
	Final Mean for 1 Valid Peaks =				3.157E-01+/- 3.649E-01 (115.58%)		
CD-109	88.03	3.72*	2.473E+00	7.037E+00	7.411E+00	75.41	OK
	Final Mean for 1 Valid Peaks =				7.411E+00+/- 5.588E+00 (75.41%)		
SN-126	87.57	37.00*	2.471E+00	7.080E-01	7.080E-01	75.15	OK
	Final Mean for 1 Valid Peaks =				7.080E-01+/- 5.321E-01 (75.15%)		
CE-141	145.44	48.40*	2.304E+00	1.261E+00	2.639E+00	42.55	OK
	Final Mean for 1 Valid Peaks =				2.639E+00+/- 1.123E+00 (42.55%)		
NP-237	86.50	12.60*	2.467E+00	2.083E+00	2.083E+00	75.10	OK
	Final Mean for 1 Valid Peaks =				2.083E+00+/- 1.564E+00 (75.10%)		

Flag: "*" = Keyline

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.540E+01	4.699E+00	3.235E+00	2.901E-01	7.852
TI-44	5.029E-01	2.171E-01	3.313E-01	3.364E-02	1.518
RB-82	2.829E+00	3.401E+00	5.744E+00	5.178E-01	0.492
NB-93M	3.907E+01	3.465E+01	2.081E+01	1.539E+01	1.878
RU-103	3.157E-01	3.649E-01	4.873E-01	7.328E-02	0.648
CD-109	7.411E+00	5.588E+00	9.224E+00	1.487E+00	0.803
SN-126	7.080E-01	5.321E-01	8.810E-01	1.311E-01	0.804
CE-141	2.639E+00	1.123E+00	1.025E+00	2.748E-01	2.574
TL-208	1.031E+00	2.814E-01	8.755E-01	8.670E-02	1.178
PB-210	7.966E+01	1.119E+01	7.663E+00	7.718E-01	10.395
BI-214	7.974E+01	4.588E+00	5.629E-01	5.505E-02	141.666
PB-214	8.426E+01	5.815E+00	6.509E-01	5.887E-02	129.449
RN-219	7.487E+00	2.868E+00	4.153E+00	3.964E-01	1.803
RA-223	5.728E+00	4.127E+00	6.046E+00	5.262E-01	0.947
RA-224	1.670E+02	1.731E+01	5.974E+00	5.383E-01	27.952
RA-226	1.694E+02	3.106E+02	7.471E+00	1.369E+01	22.677
TH-234	5.109E+01	8.982E+00	7.922E+00	7.210E-01	6.450
U-235	5.174E+00	4.295E+00	2.263E+00	4.223E-01	2.287
NP-237	2.083E+00	1.564E+00	2.423E+00	3.540E-01	0.860
AM-243	8.342E+00	1.118E+00	4.472E-01	5.247E-02	18.655

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	1.219E+00		2.604E+00	3.851E+00	3.831E-01	0.317
NA-22	5.776E-02		2.229E-01	3.407E-01	3.122E-02	0.170
AL-26	-1.179E-01		1.179E-01	1.804E-01	1.614E-02	-0.653
SC-46	-1.436E-01		2.671E-01	4.488E-01	3.637E-02	-0.320
V-48	4.650E-01		9.439E-01	1.473E+00	1.283E-01	0.316
CR-51	1.034E+00		3.823E+00	5.717E+00	5.209E-01	0.181
MN-54	1.600E-01		2.269E-01	3.582E-01	3.083E-02	0.447
CO-56	-2.340E-01		2.821E-01	4.184E-01	3.560E-02	-0.559
CO-57	9.607E-02		1.686E-01	2.822E-01	3.278E-02	0.340
CO-58	2.441E-02		2.749E-01	4.262E-01	3.757E-02	0.057
FE-59	-2.816E-02		6.160E-01	1.042E+00	1.068E-01	-0.027
CO-60	-1.012E-01		2.348E-01	3.463E-01	3.519E-02	-0.292
ZN-65	6.423E-02		4.876E-01	7.447E-01	7.256E-02	0.086
SE-75	6.030E-03		3.621E-01	4.766E-01	4.076E-02	0.013
RB-83	3.761E-02		4.576E-01	7.254E-01	1.193E-01	0.052
KR-85	4.268E+01		3.827E+01	6.198E+01	6.207E+00	0.689
SR-85	2.685E-01		2.408E-01	3.900E-01	3.906E-02	0.689
Y-88	1.422E-01		1.833E-01	2.986E-01	2.670E-02	0.476
NB-94	4.633E-02		1.874E-01	3.234E-01	2.680E-02	0.143
NB-95	3.153E+00		5.486E-01	8.401E-01	7.628E-02	3.753
ZR-95	-1.137E-02		4.323E-01	7.462E-01	7.424E-02	-0.015
RU-106	-1.685E-01		1.518E+00	2.640E+00	3.718E-01	-0.064
AG-108M	7.713E-02		2.004E-01	3.161E-01	2.927E-02	0.244

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AG-110M	-2.550E-02		1.877E-01	2.926E-01	2.758E-02	-0.087
SN-113	2.297E-01		3.382E-01	5.049E-01	4.902E-02	0.455
TE123M	6.450E-02		2.631E-01	3.558E-01	3.630E-02	0.181
SB-124	-2.879E-02		2.623E-01	4.102E-01	4.026E-02	-0.070
I-125	-2.165E+00		5.260E+00	8.372E+00	1.174E+00	-0.259
SB-125	5.668E-01		5.984E-01	9.676E-01	9.552E-02	0.586
SB-126	3.650E+00	+	3.340E+00	3.768E+00	3.493E-01	0.969
I-129	3.289E-01		5.679E-01	8.171E-01	1.519E-01	0.403
I-131	8.414E-01		3.558E+00	5.740E+00	5.272E-01	0.147
BA-133	1.378E+00		3.469E-01	4.720E-01	6.379E-02	2.919
CS-134	6.429E-02		1.859E-01	2.947E-01	2.895E-02	0.218
CS-135	3.597E+00		1.090E+00	1.651E+00	1.388E-01	2.178
CS-136	-3.917E-01		1.629E+00	2.451E+00	2.322E-01	-0.160
CS-137	1.073E-01		1.892E-01	3.025E-01	2.846E-02	0.355
LA-138	-1.215E-01		3.145E-01	5.168E-01	4.490E-02	-0.235
CE-139	1.463E-01		2.317E-01	3.560E-01	3.536E-02	0.411
BA-140	3.763E+00		4.445E+00	6.903E+00	2.315E+00	0.545
LA-140	1.264E+00		1.442E+00	2.394E+00	2.127E-01	0.528
CE-144	-1.539E+00		1.393E+00	2.269E+00	2.532E-01	-0.678
PM-144	7.407E-02		1.847E-01	2.924E-01	2.734E-02	0.253
PM-145	-4.606E-01		1.061E+00	1.618E+00	1.066E+00	-0.285
PM-146	6.719E-01		4.490E-01	6.777E-01	6.682E-02	0.992
ND-147	-6.438E-01		1.115E+01	1.758E+01	1.760E+00	-0.037
EU-152	1.218E+01	+	2.343E+00	3.636E+00	3.974E-01	3.350
GD-153	-7.290E-01		6.360E-01	1.039E+00	1.384E-01	-0.702
EU-154	1.501E-01		6.162E-01	9.408E-01	8.622E-02	0.160
EU-155	8.605E-01	+	6.462E-01	1.109E+00	1.621E-01	0.776
EU-156	-2.171E+00		9.200E+00	1.405E+01	3.219E+00	-0.154
HO-166M	2.871E-01		3.879E-01	5.038E-01	4.684E-02	0.570
HF-172	-1.112E+00		1.233E+00	2.023E+00	2.318E-01	-0.550
LU-172	-3.239E+00		1.125E+01	1.887E+01	1.806E+00	-0.172
LU-173	4.610E+00		8.915E-01	1.379E+00	1.145E-01	3.343
HF-175	1.054E-01		3.249E-01	4.254E-01	3.804E-02	0.248
LU-176	5.407E-02		1.679E-01	2.517E-01	2.135E-02	0.215
TA-182	4.367E+01	+	5.023E+00	3.774E+00	3.691E-01	11.571
IR-192	-2.311E-02		5.651E-01	7.194E-01	7.134E-02	-0.032
HG-203	2.823E-01		3.407E-01	5.166E-01	4.322E-02	0.546
BI-207	-8.078E-02		1.525E-01	2.625E-01	2.611E-02	-0.308
BI-210M	2.146E-01		3.466E-01	5.251E-01	4.494E-02	0.409
PB-211	1.466E+01		6.325E+00	1.025E+01	9.809E-01	1.430
BI-212	-6.861E-01		1.519E+00	2.319E+00	2.144E-01	-0.296
PB-212	2.194E+00		4.137E-01	6.208E-01	5.622E-02	3.534
RA-225	-2.268E+00		3.325E+00	5.248E+00	6.260E-01	-0.432
TH-227	8.377E+00	+	1.721E+00	2.317E+00	2.110E-01	3.615
AC-228	5.224E-01		7.767E-01	1.346E+00	1.093E-01	0.388
TH-230	1.284E+02	+	5.539E+01	8.657E+01	8.749E+00	1.483
PA-231	1.061E+01	+	8.440E+00	1.098E+01	9.252E-01	0.967
TH-231	2.353E+00		2.630E+00	4.194E+00	1.038E+00	0.561

----- Non-Identified Nuclides -----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PA-233	1.267E-01		9.177E-01	1.485E+00	3.330E-01	0.085
PA-234	-1.491E-01		6.645E-01	1.102E+00	1.240E-01	-0.135
PA-234M	3.753E+01		2.309E+01	4.073E+01	3.604E+00	0.921
AM-241	1.082E+00		6.046E-01	8.551E-01	7.042E-02	1.266
CM-243	2.186E-01		1.153E+00	1.730E+00	1.410E-01	0.126

Total number of lines in spectrum 98
 Number of unidentified lines 54
 Number of lines tentatively identified by NID 44 44.90%

Nuclide Type : NATURAL

Nuclide	Hlife	Decay	Wtd Mean		Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
			Uncorrected pCi/GRAM	Decay Corr pCi/GRAM			
K-40	1.28E+09Y	1.00	2.540E+01	2.540E+01	0.470E+01	18.50	
TL-208	1.41E+10Y	1.00	1.031E+00	1.031E+00	0.281E+00	27.29	
PB-210	22.26Y	1.00	7.942E+01	7.966E+01	1.119E+01	14.05	
BI-214	1602.00Y	1.00	7.974E+01	7.974E+01	0.459E+01	5.75	
PB-214	1602.00Y	1.00	8.426E+01	8.426E+01	0.581E+01	6.90	
RN-219	3.28E+04Y	1.00	7.487E+00	7.487E+00	2.868E+00	38.30	
RA-223	3.28E+04Y	1.00	5.728E+00	5.728E+00	4.127E+00	72.05	
RA-224	1.41E+10Y	1.00	1.670E+02	1.670E+02	0.173E+02	10.37	
RA-226	1602.00Y	1.00	1.694E+02	1.694E+02	3.106E+02	183.32	
TH-234	4.47E+09Y	1.00	5.109E+01	5.109E+01	0.898E+01	17.58	
U-235	7.04E+08Y	1.00	5.174E+00	5.174E+00	4.295E+00	82.99	
Total Activity :			6.757E+02	6.760E+02			

Nuclide Type : ACTIVATION

Nuclide	Hlife	Decay	Wtd Mean		Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
			Uncorrected pCi/GRAM	Decay Corr pCi/GRAM			
TI-44	63.00Y	1.00	5.024E-01	5.029E-01	2.171E-01	43.16	
RB-82	25.55D	2.56	1.106E+00	2.829E+00	3.401E+00	120.25	
AM-243	7380.00Y	1.00	8.342E+00	8.342E+00	1.118E+00	13.40	
Total Activity :			9.950E+00	1.167E+01			

Nuclide Type : FISSION

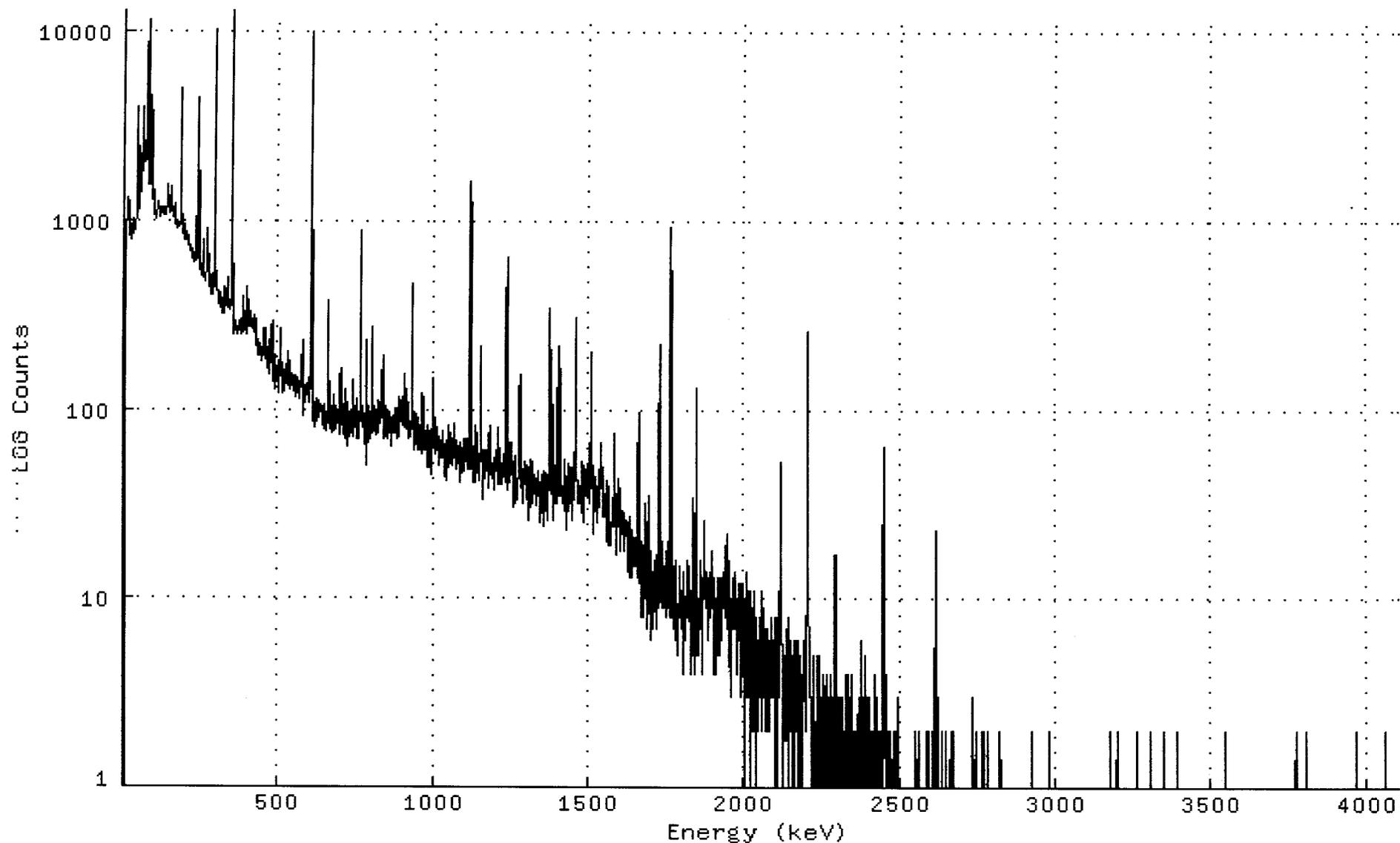
Nuclide	Hlife	Decay	Wtd Mean		Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
			Uncorrected pCi/GRAM	Decay Corr pCi/GRAM			
NB-93M	14.60Y	1.00	3.890E+01	3.907E+01	3.465E+01	88.69	
RU-103	39.35D	1.84	1.715E-01	3.157E-01	3.649E-01	115.58	
CD-109	464.00D	1.05	7.037E+00	7.411E+00	5.588E+00	75.41	
SN-126	1.00E+05Y	1.00	7.080E-01	7.080E-01	5.321E-01	75.15	
CE-141	32.50D	2.09	1.261E+00	2.639E+00	1.123E+00	42.55	
NP-237	2.14E+06Y	1.00	2.083E+00	2.083E+00	1.564E+00	75.10	
Total Activity :			5.016E+01	5.223E+01			

Grand Total Activity : 7.358E+02 7.399E+02

Flags: "K" = Keyline not found
 "E" = Manually edited

"M" = Manually accepted
 "A" = Nuclide specific abn. limit

Spectrum : DKA100:[GAMMA.SCUSR.ARCHIVE]SMP_111106809_GE3_GAS1102_172289.CNF;1
Title :
Sample Title: S12-14-31-111107
Start Time: 11-DEC-2011 14:31 Sample Time: 7-NOV-2011 00:00: Energy Offset: -2.78447E-01
Real Time : 0 01:00:54.28 Sample ID : 1111068-09 Energy Slope : 9.99940E-01
Live Time : 0 01:00:00.00 Sample Type: SOIL Energy Quad : 0.00000E+00



0204

Channel Contents for DKA100:[GAMMA.SCUSR.ARCHIVE]SMP_111106809_GE3_GAS1102_1722

Channel

1:	0	0	0	0	0	0	0	0
9:	54	937	1042	982	1152	1132	1005	1286
17:	1190	937	940	906	874	835	784	809
25:	839	870	881	948	849	832	867	968
33:	1020	888	927	878	961	988	897	924
41:	1066	1046	1080	1095	1174	1502	3933	1536
49:	1141	1372	1523	1320	1582	2189	1425	1401
57:	1494	1546	1667	1854	2014	1947	2433	3943
65:	2124	1995	2055	2578	2222	2046	2142	2075
73:	2167	2351	6769	5472	6468	11270	2193	2593
81:	2196	2399	1544	2997	2578	1534	2710	4498
89:	1803	2326	2277	1541	3771	2407	1777	1444
97:	1093	1293	1431	1136	1095	1046	1100	1012
105:	1080	1106	1103	1048	1188	1143	1139	1179
113:	1245	1243	1102	1119	1106	1103	1024	1037
121:	1123	1069	1169	1071	1092	1105	1075	1070
129:	1130	1147	1123	1051	1063	1109	1118	1048
137:	1110	1172	1114	1177	1149	1158	1166	1428
145:	1527	1171	1070	1111	1115	1139	1221	1223
153:	1165	1263	1494	1102	1174	1120	1125	1053
161:	1063	1040	1033	1207	1088	949	942	955
169:	995	975	963	988	947	901	922	938
177:	917	970	947	959	966	948	954	943
185:	1039	2936	4975	1271	873	940	896	881
193:	847	883	846	826	950	842	821	791
201:	781	854	832	787	802	828	776	754
209:	754	824	726	737	731	706	714	737
217:	684	695	674	662	696	635	660	622
225:	647	611	663	610	630	590	621	604
233:	627	631	624	803	1030	637	981	760
241:	619	3003	4393	742	569	538	545	551
249:	560	578	566	527	554	516	502	573
257:	775	540	688	713	494	480	471	480
265:	494	481	475	471	564	905	714	767
273:	528	543	655	553	466	475	440	443
281:	465	502	399	458	483	491	522	463
289:	443	403	464	453	459	457	3135	10049
297:	1810	438	416	468	530	434	422	433
305:	410	386	374	377	357	371	354	340
313:	406	355	371	340	370	364	383	344
321:	350	316	343	370	444	363	321	350
329:	401	401	426	349	374	374	388	355
337:	362	356	495	399	344	357	351	334
345:	377	334	333	355	374	399	846	9432
353:	13043	1151	299	351	309	294	261	246
361:	291	265	283	261	258	276	270	258
369:	262	260	265	247	264	256	293	275
377:	268	289	248	249	298	266	293	295
385:	273	254	360	347	342	390	270	289
393:	292	258	284	272	282	254	250	299
401:	283	345	440	279	363	375	318	297
409:	273	323	310	277	277	269	286	295
417:	300	285	263	278	286	309	285	254
425:	303	269	294	294	242	257	256	230

433:	214	217	215	190	230	203	204	211
441:	205	192	209	198	220	213	203	212
449:	206	178	210	187	190	209	256	265
457:	214	204	185	186	190	211	267	206
465:	167	173	187	167	165	210	203	180
473:	153	196	231	193	175	174	184	189
481:	280	212	166	141	140	184	194	290
489:	172	137	190	172	128	153	146	146
497:	169	154	169	150	138	136	178	138
505:	122	126	135	160	175	187	237	263
513:	194	163	152	120	149	155	147	159
521:	142	144	151	124	147	170	150	139
529:	136	144	140	154	153	201	191	152
537:	132	147	181	126	145	129	132	171
545:	138	145	147	132	144	145	148	142
553:	128	138	125	145	149	124	144	116
561:	131	131	141	146	131	120	135	125
569:	130	122	135	119	114	131	138	135
577:	132	129	140	158	194	155	150	232
585:	136	112	91	124	127	115	134	108
593:	123	125	137	121	119	128	130	121
601:	130	114	107	127	141	151	126	231
609:	2861	9895	3623	222	136	132	123	105
617:	105	85	107	98	105	96	92	79
625:	89	87	97	89	103	114	99	89
633:	101	111	96	96	98	103	96	97
641:	105	96	100	83	98	103	82	100
649:	78	105	84	103	85	89	92	96
657:	82	85	93	77	90	105	102	83
665:	141	378	214	90	78	85	100	98
673:	87	96	103	94	78	93	74	85
681:	85	76	83	118	111	98	85	104
689:	95	78	97	84	87	93	98	84
697:	86	103	97	86	83	73	143	162
705:	126	107	89	84	90	82	105	91
713:	81	87	99	73	69	83	89	103
721:	126	93	101	91	64	107	71	88
729:	97	84	71	96	94	91	91	79
737:	80	95	92	74	78	71	143	107
745:	79	84	103	94	81	82	86	79
753:	90	113	94	82	90	86	69	91
761:	83	82	95	82	70	103	163	293
769:	882	427	128	79	95	87	91	102
777:	93	65	73	89	78	85	93	50
785:	93	188	233	134	78	93	103	67
793:	96	70	87	91	90	78	70	95
801:	91	82	76	101	75	164	273	137
809:	79	83	87	77	82	94	73	89
817:	89	86	80	96	101	110	91	74
825:	89	90	99	96	87	83	90	109
833:	109	93	90	92	92	105	137	192
841:	114	91	74	69	82	78	80	92
849:	72	85	103	80	98	81	93	70
857:	86	81	75	91	97	90	87	87
865:	71	89	64	74	86	81	85	88
873:	74	92	80	100	81	86	90	95
881:	74	88	91	85	84	100	92	70
889:	96	92	90	87	71	115	107	93
897:	95	95	87	86	91	116	87	82
905:	92	94	102	99	81	80	107	153

913:	108	82	78	100	97	78	109	82
921:	79	74	86	69	74	84	72	86
929:	72	78	73	82	95	319	464	197
937:	83	73	77	97	75	72	61	81
945:	84	80	93	76	65	68	89	79
953:	87	72	61	81	73	74	65	62
961:	61	63	73	92	121	99	58	62
969:	98	115	73	67	77	70	75	62
977:	77	61	69	72	81	49	69	72
985:	70	72	69	49	64	68	71	77
993:	66	45	58	67	68	78	72	66
1001:	94	144	76	62	89	67	65	61
1009:	58	75	79	69	64	75	64	60
1017:	71	66	50	68	71	71	70	61
1025:	62	57	58	55	61	77	56	57
1033:	56	65	55	65	44	64	60	60
1041:	64	53	53	52	68	42	49	53
1049:	65	73	49	69	82	67	72	62
1057:	66	55	51	75	67	59	50	57
1065:	58	66	55	61	73	76	84	63
1073:	48	58	60	68	57	62	60	60
1081:	57	64	56	51	54	60	65	41
1089:	66	62	62	46	60	60	53	58
1097:	52	64	69	47	69	63	59	67
1105:	70	59	53	54	61	70	48	59
1113:	57	60	51	57	57	48	116	640
1121:	1607	970	150	71	52	48	54	52
1129:	45	54	53	63	41	59	81	72
1137:	47	41	67	64	52	46	61	66
1145:	75	62	51	55	42	58	44	58
1153:	55	53	111	217	141	59	51	60
1161:	33	57	55	51	43	51	44	61
1169:	54	57	51	57	51	47	60	55
1177:	45	58	38	45	58	68	81	50
1185:	64	57	57	45	43	46	47	44
1193:	49	51	51	41	37	50	37	49
1201:	50	60	47	51	48	51	52	57
1209:	79	59	40	42	41	44	40	58
1217:	53	62	50	49	48	40	46	46
1225:	52	44	45	56	50	58	53	41
1233:	50	50	53	60	80	313	640	302
1241:	77	37	52	46	41	56	50	45
1249:	66	47	45	51	60	65	66	59
1257:	47	43	39	48	48	30	41	42
1265:	36	57	48	32	33	43	42	34
1273:	40	40	45	52	47	43	43	46
1281:	117	153	104	42	46	39	41	34
1289:	35	43	48	32	36	43	45	49
1297:	53	45	51	41	33	35	50	47
1305:	41	49	33	39	45	26	37	41
1313:	34	49	30	34	54	52	32	44
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1353:	40	45	41	47	38	43	24	36
1361:	38	34	40	46	36	35	31	26
1369:	38	31	39	39	45	37	47	41
1377:	128	339	335	129	46	36	44	40
1385:	73	106	83	42	32	26	41	32

1393:	39	37	50	37	34	34	32	56
1401:	66	131	123	47	46	35	59	151
1409:	215	123	42	35	40	40	35	40
1417:	37	39	36	37	36	32	43	40
1425:	35	54	43	36	23	33	41	34
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1441:	49	45	32	47	38	39	39	40
1449:	27	33	49	26	42	39	37	34
1457:	35	36	42	83	217	306	125	45
1465:	46	37	39	42	32	42	35	32
1473:	34	39	35	35	38	28	38	45
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1489:	50	46	41	38	35	41	37	43
1497:	50	46	48	34	44	34	45	56
1505:	37	32	43	45	100	200	164	64
1513:	53	38	41	50	46	46	22	45
1521:	43	36	29	36	42	44	35	39
1529:	36	25	31	36	36	44	30	36
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1545:	65	38	27	35	32	36	35	27
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1561:	22	25	28	25	25	39	19	29
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1585:	54	34	24	29	20	32	17	20
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1601:	38	25	22	21	19	18	28	28
1609:	22	29	25	27	27	20	20	18
1617:	21	28	23	25	23	25	26	23
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1665:	24	18	12	14	20	8	12	11
1673:	11	14	10	19	10	8	15	18
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1689:	15	10	17	21	31	35	31	11
1697:	15	11	6	8	10	11	18	12
1705:	9	9	9	12	14	7	10	10
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1721:	13	17	17	9	13	10	15	16
1729:	55	215	218	90	23	16	10	9
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1745:	15	12	9	13	13	15	13	8
1753:	18	11	20	11	9	17	12	15
1761:	8	10	64	348	888	924	315	58
1769:	17	11	8	8	10	7	8	10
1777:	15	14	9	16	6	9	8	9
1785:	9	5	5	8	5	8	11	8
1793:	10	13	15	14	8	8	10	11
1801:	7	10	10	13	14	6	7	4
1809:	10	6	7	9	8	8	9	12
1817:	9	9	9	8	16	14	10	10
1825:	12	14	11	5	6	9	11	11
1833:	4	6	7	7	10	11	34	24
1841:	14	15	9	14	4	10	52	130
1849:	122	46	13	5	9	5	5	10
1857:	9	6	13	11	16	14	7	15
1865:	6	10	13	4	9	13	12	15

1873:	17	26	23	10	11	14	11	9
1881:	9	11	13	7	12	6	9	9
1889:	10	9	13	14	12	8	9	11
1897:	18	9	12	16	13	9	12	11
1905:	4	13	10	9	6	10	4	7
1913:	9	5	5	8	13	11	5	6
1921:	13	7	10	9	5	12	13	7
1929:	13	6	9	10	9	14	12	13
1937:	12	15	19	12	12	10	8	10
1945:	11	8	10	10	7	22	7	10
1953:	16	9	12	6	3	5	7	10
1961:	10	6	13	7	8	10	8	11
1969:	12	7	9	14	10	8	7	9
1977:	6	10	4	7	8	12	11	7
1985:	10	6	8	5	12	4	5	5
1993:	3	12	4	11	7	7	5	3
2001:	0	9	10	5	4	3	5	10
2009:	4	7	14	6	11	4	10	3
2017:	6	11	10	8	5	1	9	9
2025:	2	8	6	6	5	4	11	6
2033:	7	2	5	4	4	2	8	4
2041:	1	4	5	2	4	6	2	3
2049:	3	7	3	6	6	8	6	11
2057:	4	7	2	3	6	9	3	7
2065:	6	6	7	3	6	4	7	4
2073:	2	3	5	6	6	7	2	3
2081:	2	4	3	6	4	4	3	8
2089:	3	5	5	6	4	4	5	3
2097:	6	6	3	8	1	4	4	5
2105:	8	7	5	1	4	9	11	9
2113:	4	3	5	4	8	16	50	53
2121:	34	11	3	1	5	4	2	1
2129:	3	2	5	4	2	2	2	5
2137:	7	4	3	3	1	2	1	8
2145:	2	1	4	5	4	6	2	4
2153:	4	3	4	5	0	3	1	1
2161:	2	3	0	6	5	6	2	2
2169:	3	3	3	5	2	1	3	6
2177:	4	5	4	1	1	4	4	1
2185:	3	4	1	1	3	3	3	4
2193:	6	5	4	2	3	3	4	3
2201:	6	11	42	137	256	195	60	10
2209:	5	5	6	6	3	3	3	3
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2225:	1	5	0	2	0	2	1	2
2233:	0	0	2	1	3	5	2	5
2241:	3	3	0	3	2	3	3	3
2249:	1	3	3	1	1	1	3	0
2257:	4	3	1	2	3	3	2	2
2265:	1	2	3	4	4	2	0	2
2273:	2	1	3	0	4	0	0	3
2281:	3	1	2	1	1	1	3	0
2289:	5	2	5	0	7	17	17	8
2297:	4	2	1	0	2	3	1	2
2305:	2	3	1	2	2	1	2	3
2313:	1	1	2	1	3	2	1	1
2321:	2	1	1	1	4	1	1	0
2329:	3	1	2	4	4	0	4	1
2337:	0	3	1	3	1	1	1	4
2345:	0	1	2	3	0	0	0	2

2353:	1	1	1	2	1	1	2	1
2361:	0	1	1	0	1	0	2	3
2369:	1	3	1	0	1	2	2	6
2377:	0	2	0	1	2	0	1	1
2385:	3	0	2	1	1	2	5	1
2393:	1	3	1	0	2	0	1	1
2401:	2	3	0	0	0	0	1	2
2409:	1	1	1	1	0	1	2	0
2417:	1	0	4	3	0	2	0	3
2425:	2	1	1	0	1	2	1	2
2433:	1	1	0	1	1	2	1	1
2441:	0	1	1	1	3	7	12	51
2449:	64	48	15	3	2	0	2	4
2457:	0	1	0	0	0	0	2	1
2465:	1	0	0	1	2	1	1	0
2473:	0	1	0	0	1	1	2	0
2481:	0	0	1	0	1	2	2	0
2489:	0	1	0	1	2	0	3	0
2497:	1	1	0	1	0	0	1	0
2505:	0	1	0	1	0	0	0	1
2513:	0	1	0	1	0	0	0	0
2521:	0	0	1	0	1	1	1	1
2529:	0	1	1	0	0	0	1	0
2537:	0	0	0	1	1	1	0	0
2545:	0	0	2	1	0	0	1	0
2553:	0	0	0	0	0	0	2	0
2561:	0	0	0	0	1	1	0	1
2569:	1	0	0	0	1	1	0	0
2577:	1	0	0	0	0	0	0	1
2585:	0	0	1	2	0	0	0	0
2593:	2	1	0	0	1	0	0	1
2601:	1	0	0	0	2	1	1	0
2609:	0	0	1	2	3	10	15	23
2617:	8	3	0	3	0	0	0	1
2625:	0	0	1	0	0	0	0	0
2633:	0	0	2	0	0	0	0	1
2641:	0	0	1	0	0	2	0	0
2649:	1	0	0	0	0	1	0	1
2657:	1	1	0	0	0	1	2	0
2665:	0	0	0	0	0	1	2	0
2673:	0	1	0	0	1	1	0	1
2681:	0	0	0	0	1	1	0	1
2689:	0	0	0	0	0	1	0	0
2697:	0	0	0	0	1	0	1	0
2705:	0	1	1	0	0	0	0	0
2713:	0	0	0	0	0	0	0	0
2721:	0	1	0	1	0	0	0	0
2729:	0	1	3	0	0	0	0	1
2737:	1	0	1	0	0	0	2	0
2745:	0	0	0	0	0	0	1	0
2753:	0	1	0	0	0	0	0	0
2761:	0	0	1	0	0	2	1	0
2769:	0	2	0	1	1	0	0	1
2777:	0	0	0	0	2	0	1	0
2785:	0	0	1	1	0	0	1	1
2793:	0	0	0	0	0	0	0	0
2801:	0	1	1	0	0	0	0	0
2809:	1	0	0	0	0	0	0	0
2817:	0	1	0	0	0	2	0	0
2825:	0	0	0	0	0	1	0	0

2833:	0	0	0	0	0	0	0	0	0
2841:	0	0	1	0	0	0	0	0	0
2849:	0	0	0	0	1	0	0	0	0
2857:	1	0	1	1	0	0	0	0	0
2865:	0	0	0	1	1	0	0	0	1
2873:	0	0	0	0	0	0	0	0	0
2881:	0	1	0	0	0	0	0	0	0
2889:	1	0	1	0	0	0	0	0	0
2897:	0	0	0	0	0	0	0	1	0
2905:	0	0	0	0	0	0	0	0	0
2913:	0	0	0	0	0	0	0	0	0
2921:	0	2	1	0	0	0	0	0	0
2929:	0	0	0	0	0	0	0	0	0
2937:	0	0	0	0	0	1	0	0	0
2945:	0	1	0	0	0	0	0	0	0
2953:	0	0	0	0	0	0	0	0	0
2961:	1	0	0	0	1	0	0	0	0
2969:	0	0	0	1	0	0	0	0	1
2977:	0	0	2	2	0	0	0	0	0
2985:	0	0	1	0	0	0	0	0	0
2993:	0	1	0	0	1	1	0	0	0
3001:	1	0	0	0	0	0	1	0	0
3009:	0	0	0	0	0	0	0	0	0
3017:	0	1	0	0	0	0	0	0	1
3025:	0	0	0	0	0	0	0	0	0
3033:	0	0	0	0	0	0	0	0	0
3041:	0	0	1	0	1	0	0	0	0
3049:	0	0	0	0	0	0	1	0	0
3057:	0	0	0	1	0	0	0	0	0
3065:	0	0	0	0	0	0	0	0	0
3073:	0	0	0	0	0	1	1	0	0
3081:	0	1	0	0	1	1	1	0	0
3089:	0	0	0	0	0	0	0	0	1
3097:	0	0	1	0	0	0	0	0	0
3105:	0	0	0	0	0	0	0	0	0
3113:	0	1	0	0	0	0	0	0	0
3121:	0	0	0	0	0	0	0	0	0
3129:	0	0	0	0	0	0	0	0	0
3137:	0	0	0	0	1	0	0	0	0
3145:	0	0	0	1	0	0	1	0	0
3153:	0	0	0	0	0	0	1	0	0
3161:	0	0	0	0	0	1	0	0	0
3169:	0	0	0	0	1	0	1	0	0
3177:	2	0	0	0	0	0	0	0	0
3185:	1	1	1	0	0	0	1	0	0
3193:	0	0	0	0	2	0	0	0	0
3201:	0	0	0	0	0	1	1	0	0
3209:	0	0	0	0	0	1	1	0	0
3217:	0	1	0	0	0	0	0	1	0
3225:	0	0	0	0	1	1	1	0	0
3233:	0	0	0	0	0	0	0	0	0
3241:	0	0	0	0	1	0	0	0	0
3249:	0	0	0	0	0	0	0	0	0
3257:	0	0	0	0	2	0	0	0	0
3265:	0	0	0	0	0	0	0	0	0
3273:	0	0	0	0	0	0	0	0	0
3281:	0	0	0	0	0	1	0	0	0
3289:	0	0	0	0	0	0	0	0	1
3297:	0	0	0	0	0	0	0	0	1
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3313:	0	0	0	0	0	0	0	0	0
3321:	0	0	1	0	0	0	0	0	0
3329:	0	0	0	0	0	0	0	0	0
3337:	0	0	0	0	0	0	0	0	1
3345:	2	0	0	0	1	0	0	0	0
3353:	1	0	0	0	0	0	0	0	0
3361:	0	0	0	0	0	0	1	0	0
3369:	0	0	0	0	0	0	1	0	0
3377:	1	0	0	0	0	0	0	0	0
3385:	1	0	0	0	0	0	0	0	2
3393:	0	0	0	0	0	0	0	0	0
3401:	0	0	1	0	0	1	0	0	0
3409:	0	0	0	0	1	0	0	0	0
3417:	0	0	0	0	0	0	0	0	0
3425:	0	0	0	0	0	0	0	0	0
3433:	0	0	0	0	0	0	0	0	0
3441:	0	0	0	0	0	0	0	0	0
3449:	0	0	0	1	0	0	0	0	0
3457:	0	0	0	0	0	1	0	0	0
3465:	0	0	0	0	0	0	0	0	0
3473:	0	0	0	0	0	0	0	0	0
3481:	0	0	0	1	0	0	0	0	0
3489:	0	0	0	0	1	0	0	0	0
3497:	0	1	1	1	0	0	0	0	0
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3513:	0	0	0	0	0	0	0	0	1
3521:	0	0	0	0	0	0	0	0	0
3529:	0	0	0	0	0	0	0	0	0
3537:	0	0	0	0	0	2	1	0	0
3545:	0	0	0	0	1	0	0	0	0
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3561:	0	0	0	0	0	1	0	0	0
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3577:	0	1	0	0	0	0	0	0	0
3585:	0	0	0	0	0	0	0	0	0
3593:	0	1	0	0	0	0	0	0	0
3601:	0	0	1	0	1	0	0	0	0
3609:	0	1	0	1	0	0	0	0	1
3617:	1	0	0	0	0	0	0	0	0
3625:	0	0	0	0	0	1	0	0	0
3633:	1	0	0	0	1	0	0	0	0
3641:	0	0	0	0	0	0	0	0	0
3649:	0	0	0	0	0	0	0	0	0
3657:	0	0	1	0	0	0	0	0	0
3665:	0	0	0	0	0	0	0	0	0
3673:	0	0	0	0	0	0	0	0	0
3681:	0	0	0	0	0	0	0	0	1
3689:	0	0	0	0	0	0	0	0	0
3697:	0	0	0	0	0	0	0	0	0
3705:	0	0	0	0	0	0	0	0	1
3713:	0	0	0	0	0	0	0	0	0
3721:	0	0	0	0	0	0	0	0	0
3729:	0	0	0	0	0	1	0	0	0
3737:	0	0	1	1	0	0	0	0	0
3745:	0	0	0	0	0	0	0	0	0
3753:	0	0	0	0	0	0	0	0	0
3761:	0	0	0	1	0	0	0	0	2
3769:	0	0	0	0	0	0	0	0	0
3777:	0	0	1	0	0	0	0	0	0
3785:	0	0	0	0	0	0	0	0	0

3793:	0	0	0	0	0	0	0	0
3801:	0	0	2	0	0	0	0	0
3809:	0	0	0	0	0	0	0	0
3817:	0	0	0	0	0	0	0	0
3825:	0	0	0	0	0	0	1	0
3833:	0	0	0	0	0	1	0	0
3841:	0	0	0	0	0	0	0	0
3849:	0	0	0	0	0	0	0	0
3857:	0	0	0	0	0	0	0	0
3865:	0	0	0	0	0	0	0	0
3873:	0	0	0	0	0	0	0	0
3881:	0	0	0	0	0	0	0	0
3889:	0	0	0	0	0	0	0	0
3897:	0	0	0	0	0	0	0	1
3905:	0	0	0	0	0	0	0	0
3913:	0	1	0	0	0	0	0	0
3921:	0	0	0	0	0	0	0	0
3929:	0	1	0	0	0	0	0	0
3937:	0	0	1	0	0	0	0	0
3945:	0	0	0	0	0	0	0	0
3953:	0	0	1	0	0	0	0	0
3961:	0	0	2	0	0	0	0	0
3969:	0	0	0	0	0	0	0	0
3977:	0	0	1	0	0	0	0	1
3985:	0	0	0	0	0	0	0	0
3993:	0	0	0	0	0	0	0	0
4001:	0	0	1	1	0	0	1	0
4009:	0	0	0	0	0	0	0	0
4017:	0	0	1	0	0	0	0	1
4025:	1	0	0	0	0	0	0	0
4033:	0	0	0	0	0	0	0	0
4041:	0	0	0	0	0	0	0	0
4049:	0	0	0	0	2	0	0	0
4057:	0	0	0	1	0	0	0	0
4065:	0	0	0	0	1	0	0	0
4073:	0	0	0	0	0	0	0	0
4081:	0	0	0	1	0	0	0	0
4089:	0	0	0	0	0	0	0	0

Sample ID : 1111068-10

Acquisition date : 11-DEC-2011 14:32:22

VAX/VMS Peak Search Report Generated 11-DEC-2011 15:32:52.42

Configuration : DKA100: [GAMMA.SCUSR.ARCHIVE] SMP_111106810_GE4_GAS1102_172290.
 Analyses by : PEAK V16.9 ENBACK V1.6 PEAKEFF V2.2
 Client ID : S12-22-31-111107
 Deposition Date :
 Sample Date : 7-NOV-2011 00:00:00. Acquisition date : 11-DEC-2011 14:32:22
 Sample ID : 1111068-10 Sample Quantity : 4.17440E+02 GRAM
 Sample type : SOIL Sample Geometry : 0
 Detector name : GE4 Detector Geometry: GAS-1102
 Elapsed live time: 0 01:00:00.00 Elapsed real time: 0 01:00:15.89 0.4%
 Start channel : 5 End channel : 4096
 Sensitivity : 2.40000 Gaussian : 15.00000
 Critical level : Yes

Post-NID Peak Search Report

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides
0	46.56*	2123	6560	1.61	45.90	43	6	12.8		PB-210
0	52.58	400	9157	1.66	51.92	50	7	79.9		
0	63.23*	1863	10103	1.92	62.59	60	6	17.7		TH-234
7	67.28	1068	1728	3.55	66.63	66	31	8.7	1.07E+02	
7	76.55*	17650	14660	3.21	75.91	66	31	3.0		
7	81.63	1023	7791	2.02	81.00	66	31	30.7		
7	87.34	5590	14190	3.95	86.71	66	31	9.7		NP-237 SN-126 CD-109
7	92.82*	3832	9696	3.07	92.19	66	31	10.8		
0	112.56	419	6494	3.28	111.95	109	7	64.6		
0	144.05*	445	5769	2.14	143.46	141	6	54.9		CE-141
0	154.41	460	6483	2.94	153.83	151	7	58.9		
0	186.31*	4287	7879	2.05	185.76	181	10	8.3		RA-226
7	237.02	991	5459	4.18	236.50	231	16	30.6	4.95E+00	
7	242.26*	4521	2886	1.92	241.74	231	16	4.8		RA-224
0	257.91	487	4282	2.89	257.40	253	10	51.1		
0	270.97	727	4044	2.92	270.48	266	10	33.5		LU-173
0	295.49	9628	3171	1.96	295.01	290	9	2.9		PB-214
0	352.18*	16067	2697	2.10	351.74	346	11	2.0		PB-214
0	364.65	82	1090	3.35	364.22	363		5123.2		I-131
0	388.02	263	2049	3.66	387.61	384	9	63.2		
0	462.16	147	1239	2.40	461.80	458	8	84.4		
0	480.18	158	1038	3.22	479.84	476	8	73.0		
0	487.60	272	907	2.53	487.26	484	8	40.3		
0	511.06*	200	1276	3.11	510.74	505	11	71.2		
3	580.40	142	724	2.38	580.13	577	10	65.3	1.85E+00	
3	583.62	121	680	2.18	583.35	577	10	76.4		TL-208
0	609.59*	10620	1009	2.23	609.34	602	12	2.3		BI-214
2	661.51	42	133	1.90	661.30	660	11	70.8	2.82E+00	CS-137
2	665.70	419	484	2.58	665.49	660	11	20.8		
0	704.75	165	643	3.97	704.57	700	10	59.6		
0	720.63*	153	515	2.53	720.45	716	9	56.2		
0	728.21	49	350	3.00	728.04	726		6123.2		BI-212
0	768.76	1030	654	2.33	768.63	763	11	11.5		
0	785.89	258	552	2.11	785.77	782	9	35.2		

AG
12/12/11

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides
0	806.48	249	540	2.45	806.37	802	9	35.8		
0	826.97	66	280	2.96	826.87	825	5	80.8		
0	837.03	225	744	2.51	836.94	830	14	53.0		
0	911.07	112	544	3.53	911.03	907	9	77.9		
0	934.09	495	611	2.34	934.07	929	11	21.3		
0	964.55	82	526	4.06	964.56	959	10	106.5		
0	1051.93	45	230	1.96	1051.99	1050		6111.8		
0	1081.34	39	179	2.57	1081.43	1080		5107.0		
0	1120.66	2049	347	2.32	1120.77	1116	10	5.6		BI-214
0	1155.42	282	264	2.28	1155.56	1151	9	24.0		
0	1209.38	86	304	1.65	1209.56	1205	10	79.6		
0	1238.43*	758	409	2.35	1238.63	1233	12	12.9		
0	1261.19	44	134	3.09	1261.41	1259	6	89.9		
0	1281.65	148	238	2.71	1281.88	1278	8	39.8		
0	1304.91	52	187	3.13	1305.16	1301	8	96.2		
2	1378.14	535	188	2.47	1378.44	1374	17	12.1	6.52E-01	
2	1385.77	77	229	3.11	1386.08	1374	17	77.1		
3	1401.87	171	168	2.50	1402.19	1397	18	29.3	8.67E-01	
3	1408.28	285	186	2.76	1408.60	1397	18	20.5		
0	1461.30	309	238	2.73	1461.66	1458	9	21.2		K-40
0	1509.46	270	291	2.41	1509.86	1504	12	28.2		
0	1520.43*	57	218	5.50	1520.84	1516	10	100.4		
0	1545.15	51	150	3.28	1545.57	1543	7	85.1		
0	1583.42	92	178	3.29	1583.87	1580	10	57.6		
0	1662.04	111	118	2.45	1662.55	1658	10	41.6		
0	1694.55	33	76	4.59	1695.08	1690		9101.0		
0	1730.09	310	82	3.01	1730.65	1726	11	15.9		
0	1765.00	1539	109	2.78	1765.58	1758	14	5.9		BI-214
0	1827.16	18	25	3.03	1827.79	1825		6101.8		
0	1848.16	188	72	2.72	1848.80	1844	12	23.8		
0	1894.99	47	83	9.43	1895.66	1885	18	96.4		
0	2102.71	30	8	3.10	2103.54	2098	11	52.2		
0	2119.68	95	56	3.19	2120.52	2112	14	39.4		
0	2193.83	17	10	2.45	2194.73	2191	8	82.2		
0	2204.47	428	19	2.54	2205.37	2199	11	10.4		BI-214
0	2294.77	21	5	2.29	2295.73	2292	9	61.0		
0	2304.36	12	0	1.66	2305.33	2302	8	57.7		
0	2448.26	108	0	2.90	2449.33	2445	10	19.2		
0	2615.24*	18	2	2.79	2616.44	2611	9	59.6		TL-208

Total number of lines in spectrum 73
 Number of unidentified lines 40
 Number of lines tentatively identified by NID 33 45.21%

Nuclide Type : NATURAL

Nuclide	Hlife	Decay	Wtd Mean		Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
			Uncorrected pCi/GRAM	Decay Corr pCi/GRAM			
K-40	1.28E+09Y	1.00	2.895E+01	2.895E+01	0.682E+01	23.55	
TL-208	1.41E+10Y	1.00	7.778E-01	7.778E-01	3.961E-01	50.93	
PB-210	22.26Y	1.00	6.700E+01	6.720E+01	1.061E+01	15.80	
BI-212	1.41E+10Y	1.00	2.222E+00	2.222E+00	2.748E+00	123.69	
BI-214	1602.00Y	1.00	1.077E+02	1.078E+02	0.067E+02	6.23	
PB-214	1602.00Y	1.00	1.087E+02	1.087E+02	0.090E+02	8.26	
RA-224	1.41E+10Y	1.00	2.051E+02	2.051E+02	0.229E+02	11.17	
RA-226	1602.00Y	1.00	1.913E+02	1.913E+02	3.507E+02	183.37	
TH-234	4.47E+09Y	1.00	5.380E+01	5.380E+01	1.057E+01	19.64	
Total Activity :			7.656E+02	7.658E+02			

Nuclide Type : FISSION

Nuclide	Hlife	Decay	Wtd Mean		Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
			Uncorrected pCi/GRAM	Decay Corr pCi/GRAM			
CD-109	464.00D	1.05	1.597E+02	1.681E+02	0.265E+02	15.74	
SN-126	1.00E+05Y	1.00	1.605E+01	1.605E+01	0.233E+01	14.55	
I-131	8.04D	19.8	2.653E-01	5.250E+00	6.505E+00	123.90	
CS-137	30.17Y	1.00	2.396E-01	2.401E-01	1.717E-01	71.49	
CE-141	32.50D	2.09	1.150E+00	2.407E+00	1.467E+00	60.95	
NP-237	2.14E+06Y	1.00	4.708E+01	4.708E+01	0.681E+01	14.46	
Total Activity :			2.245E+02	2.392E+02			

Nuclide Type : ACTIVATION

Nuclide	Hlife	Decay	Wtd Mean		Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
			Uncorrected pCi/GRAM	Decay Corr pCi/GRAM			
LU-173	1.37Y	1.05	6.835E+00	7.171E+00	2.513E+00	35.05	
Total Activity :			6.835E+00	7.171E+00			

Grand Total Activity : 9.969E+02 1.012E+03

Flags: "K" = Keyline not found
 "E" = Manually edited

"M" = Manually accepted
 "A" = Nuclide specific abn. limit

Nuclide Type: NATURAL

Nuclide	Energy	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error	Status
K-40	1460.81	10.67*	1.798E-01	2.895E+01	2.895E+01	23.55	OK
Final Mean for 1 Valid Peaks = 2.895E+01+/- 6.817E+00 (23.55%)							
TL-208	583.14	30.22*	4.216E-01	1.710E+00	1.710E+00	77.31	OK
	860.37	4.48	2.847E-01	-----	Line Not Found	-----	Absent
	2614.66	35.85	1.318E-01	6.858E-01	6.858E-01	60.54	OK
Final Mean for 2 Valid Peaks = 7.778E-01+/- 3.961E-01 (50.93%)							
PB-210	46.50	4.05*	1.407E+00	6.700E+01	6.720E+01	15.80	OK
Final Mean for 1 Valid Peaks = 6.720E+01+/- 1.061E+01 (15.80%)							
BI-212	727.17	11.80*	3.363E-01	2.222E+00	2.222E+00	123.69	OK
	1620.62	2.75	1.671E-01	-----	Line Not Found	-----	Absent
Final Mean for 1 Valid Peaks = 2.222E+00+/- 2.748E+00 (123.69%)							
BI-214	609.31	46.30*	4.029E-01	1.024E+02	1.024E+02	11.76	OK
	1120.29	15.10	2.230E-01	1.094E+02	1.094E+02	13.08	OK
	1764.49	15.80	1.582E-01	1.108E+02	1.108E+02	11.19	OK
	2204.22	4.98	1.404E-01	1.101E+02	1.101E+02	14.53	OK
Final Mean for 4 Valid Peaks = 1.078E+02+/- 6.713E+00 (6.23%)							
PB-214	295.21	19.19	8.368E-01	1.078E+02	1.078E+02	11.01	OK
	351.92	37.19*	7.067E-01	1.099E+02	1.100E+02	12.50	OK
Final Mean for 2 Valid Peaks = 1.087E+02+/- 8.984E+00 (8.26%)							
RA-224	240.98	3.95*	1.004E+00	2.051E+02	2.051E+02	11.17	OK
Final Mean for 1 Valid Peaks = 2.051E+02+/- 2.292E+01 (11.17%)							
RA-226	186.21	3.28*	1.229E+00	1.913E+02	1.913E+02	183.37	OK
Final Mean for 1 Valid Peaks = 1.913E+02+/- 3.507E+02 (183.37%)							
TH-234	63.29	3.80*	1.639E+00	5.380E+01	5.380E+01	19.64	OK
Final Mean for 1 Valid Peaks = 5.380E+01+/- 1.057E+01 (19.64%)							

Nuclide Type: FISSION

Nuclide	Energy	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error	Status
CD-109	88.03	3.72*	1.693E+00	1.597E+02	1.681E+02	15.74	OK
Final Mean for 1 Valid Peaks = 1.681E+02+/- 2.647E+01 (15.74%)							
SN-126	87.57	37.00*	1.693E+00	1.605E+01	1.605E+01	14.55	OK
Final Mean for 1 Valid Peaks = 1.605E+01+/- 2.335E+00 (14.55%)							
I-131	284.30	6.05	8.666E-01	-----	Line Not Found	-----	Absent
	364.48	81.20*	6.826E-01	2.653E-01	5.250E+00	123.90	OK
	636.97	7.26	3.849E-01	-----	Line Not Found	-----	Absent
	722.89	1.80	3.383E-01	-----	Line Not Found	-----	Absent
Final Mean for 1 Valid Peaks = 5.250E+00+/- 6.505E+00 (123.90%)							
CS-137	661.65	85.12*	3.702E-01	2.396E-01	2.401E-01	71.49	OK
Final Mean for 1 Valid Peaks = 2.401E-01+/- 1.717E-01 (71.49%)							
CE-141	145.44	48.40*	1.436E+00	1.150E+00	2.407E+00	60.95	OK
Final Mean for 1 Valid Peaks = 2.407E+00+/- 1.467E+00 (60.95%)							
NP-237	86.50	12.60*	1.695E+00	4.708E+01	4.708E+01	14.46	OK
Final Mean for 1 Valid Peaks = 4.708E+01+/- 6.807E+00 (14.46%)							

Nuclide Type: ACTIVATION

Nuclide	Energy	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error	Status
LU-173	100.72	5.24	1.657E+00	-----	Line Not Found	-----	Absent
	272.11	21.20*	9.019E-01	6.835E+00	7.171E+00	35.05	OK
Final Mean for 1 Valid Peaks = 7.171E+00+/- 2.513E+00 (35.05%)							

Flag: "*" = Keyline

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.895E+01	6.817E+00	6.928E+00	6.513E-01	4.179
CD-109	1.681E+02	2.647E+01	1.199E+01	1.407E+00	14.027
SN-126	1.605E+01	2.335E+00	1.144E+00	1.153E-01	14.029
I-131	5.250E+00	6.505E+00	1.169E+01	1.414E+00	0.449
CS-137	2.401E-01	1.717E-01	6.225E-01	5.766E-02	0.386
CE-141	2.407E+00	1.467E+00	1.993E+00	5.206E-01	1.208
LU-173	7.171E+00	2.513E+00	2.386E+00	2.225E-01	3.006
TL-208	7.778E-01	3.961E-01	1.810E+00	2.074E-01	0.430
PB-210	6.720E+01	1.061E+01	1.155E+01	9.619E-01	5.816
BI-212	2.222E+00	2.748E+00	4.757E+00	4.925E-01	0.467
BI-214	1.078E+02	6.713E+00	1.173E+00	1.270E-01	91.833
PB-214	1.087E+02	8.984E+00	1.311E+00	1.530E-01	82.936
RA-224	2.051E+02	2.292E+01	1.203E+01	1.112E+00	17.050
RA-226	1.913E+02	3.507E+02	1.462E+01	2.677E+01	13.086
TH-234	5.380E+01	1.057E+01	1.292E+01	9.802E-01	4.163
NP-237	4.708E+01	6.807E+00	3.355E+00	3.339E-01	14.033

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	1.295E+00		5.575E+00	8.079E+00	1.048E+00	0.160
NA-22	-7.263E-02		4.298E-01	6.470E-01	6.237E-02	-0.112
AL-26	-5.750E-02		2.353E-01	4.085E-01	3.483E-02	-0.141
TI-44	1.222E+00	+	1.520E-01	5.682E-01	4.534E-02	2.150
SC-46	-9.942E-02		5.469E-01	9.385E-01	1.235E-01	-0.106
V-48	9.413E-01		1.729E+00	3.035E+00	3.864E-01	0.310
CR-51	-7.789E+00		7.397E+00	1.172E+01	1.290E+00	-0.664
MN-54	3.358E-01		4.386E-01	6.886E-01	8.408E-02	0.488
CO-56	-4.695E-02		5.569E-01	8.474E-01	1.052E-01	-0.055
CO-57	1.391E-01		3.372E-01	5.300E-01	4.885E-02	0.262
CO-58	2.553E-01		5.873E-01	9.114E-01	1.076E-01	0.280
FE-59	1.215E-01		1.170E+00	2.028E+00	2.427E-01	0.060
CO-60	-1.690E-01		3.824E-01	6.484E-01	6.679E-02	-0.261
ZN-65	2.976E+00		1.104E+00	1.791E+00	2.007E-01	1.662
SE-75	-2.240E-02		8.435E-01	9.618E-01	9.016E-02	-0.023
RB-82	4.238E+00		9.917E+00	1.143E+01	1.280E+00	0.371
RB-83	-1.869E-01		1.025E+00	1.465E+00	2.653E-01	-0.128
KR-85	1.258E+02		8.500E+01	1.261E+02	1.594E+01	0.998
SR-85	7.916E-01		5.348E-01	7.935E-01	1.003E-01	0.998
Y-88	2.871E-01		4.169E-01	6.496E-01	5.482E-02	0.442
NB-93M	9.255E+01		3.951E+01	1.892E+01	7.768E+00	4.892
NB-94	-1.213E-01		3.909E-01	6.687E-01	8.587E-02	-0.181
NB-95	8.361E+00		1.376E+00	1.838E+00	2.025E-01	4.550
ZR-95	3.097E-01		9.407E-01	1.534E+00	1.774E-01	0.202
RU-103	4.432E-01		7.027E-01	1.029E+00	1.754E-01	0.431
RU-106	-1.917E+00		3.384E+00	5.356E+00	7.836E-01	-0.358
AG-108M	9.325E-01		4.926E-01	6.225E-01	6.401E-02	1.498

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AG-110M	3.094E-01		3.959E-01	6.255E-01	5.866E-02	0.495
SN-113	5.168E-01		7.022E-01	1.027E+00	1.355E-01	0.503
TE123M	1.991E-01		4.629E-01	6.798E-01	5.896E-02	0.293
SB-124	2.264E-01		5.838E-01	8.496E-01	9.344E-02	0.266
I-125	-4.195E+00		7.366E+00	1.217E+01	1.294E+00	-0.345
SB-125	2.449E-01		1.211E+00	1.968E+00	2.604E-01	0.124
SB-126	1.047E+01	+	5.989E+00	7.651E+00	7.835E-01	1.368
I-129	1.527E-01		6.814E-01	1.138E+00	1.508E-01	0.134
BA-133	1.996E+01		3.289E+00	1.582E+00	2.448E-01	12.620
CS-134	3.442E+00		6.268E-01	8.360E-01	9.165E-02	4.117
CS-135	5.793E+00		2.732E+00	3.233E+00	3.015E-01	1.792
CS-136	1.506E+00		3.291E+00	5.123E+00	6.287E-01	0.294
LA-138	5.668E-02		6.013E-01	1.042E+00	9.563E-02	0.054
CE-139	3.697E-02		4.264E-01	6.986E-01	5.974E-02	0.053
BA-140	1.942E+00		8.657E+00	1.405E+01	4.818E+00	0.138
LA-140	3.745E+00		2.867E+00	5.066E+00	4.574E-01	0.739
CE-144	-1.905E+00		2.662E+00	4.329E+00	3.919E-01	-0.440
PM-144	-2.374E-01		3.951E-01	5.900E-01	5.809E-02	-0.402
PM-145	-1.643E+00		1.802E+00	2.379E+00	1.554E+00	-0.691
PM-146	1.891E-01		9.261E-01	1.342E+00	1.756E-01	0.141
ND-147	-6.640E+00		2.210E+01	3.547E+01	4.403E+00	-0.187
EU-152	1.867E+01	+	4.443E+00	6.678E+00	7.589E-01	2.796
GD-153	-1.587E+00		1.349E+00	1.940E+00	1.874E-01	-0.818
EU-154	-2.057E-01		1.188E+00	1.788E+00	1.724E-01	-0.115
EU-155	1.945E+01	+	2.813E+00	1.852E+00	1.843E-01	10.506
EU-156	-5.057E+00		1.904E+01	2.871E+01	6.956E+00	-0.176
HO-166M	5.787E-01		8.938E-01	1.046E+00	1.055E-01	0.553
HF-172	-1.261E+00		2.339E+00	3.818E+00	3.496E-01	-0.330
LU-172	5.631E+00		2.180E+01	3.803E+01	4.376E+00	0.148
HF-175	-9.312E-01		6.226E-01	8.546E-01	9.733E-02	-1.090
LU-176	-2.388E-01		3.195E-01	5.117E-01	5.217E-02	-0.467
TA-182	5.844E+01	+	7.634E+00	6.431E+00	7.148E-01	9.088
IR-192	4.299E-01		1.051E+00	1.531E+00	1.994E-01	0.281
HG-203	2.776E-01		7.202E-01	1.052E+00	1.005E-01	0.264
BI-207	-8.349E-04		3.411E-01	5.517E-01	6.481E-02	-0.002
BI-210M	1.478E+00		9.190E-01	1.085E+00	1.011E-01	1.362
PB-211	2.891E+01		1.290E+01	2.072E+01	2.710E+00	1.395
PB-212	8.961E+00		1.173E+00	1.378E+00	1.272E-01	6.505
RN-219	5.781E+00		5.468E+00	8.933E+00	1.167E+00	0.647
RA-223	6.619E-01		7.891E+00	1.285E+01	1.381E+00	0.052
RA-225	1.006E+01		5.408E+00	8.098E+00	7.623E-01	1.242
TH-227	1.517E+01	+	4.883E+00	4.573E+00	4.215E-01	3.317
AC-228	2.690E+00	+	2.128E+00	2.702E+00	3.580E-01	0.995
TH-230	3.116E+02	+	3.873E+01	1.451E+02	1.155E+01	2.147
PA-231	2.653E+01		1.466E+01	2.164E+01	2.178E+00	1.226
TH-231	1.289E+00		3.325E+00	5.559E+00	9.261E-01	0.232
PA-233	1.835E-01		1.863E+00	3.036E+00	7.037E-01	0.060
PA-234	6.699E-01		1.272E+00	2.096E+00	1.904E-01	0.320

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PA-234M	3.398E+01		4.262E+01	7.515E+01	9.449E+00	0.452
U-235	5.269E+00	+	3.047E+00	4.462E+00	7.877E-01	1.181
AM-241	2.446E+00		1.195E+00	1.422E+00	1.037E-01	1.720
AM-243	2.783E+01		2.716E+00	1.176E+00	1.015E-01	23.663
CM-243	1.026E+00		2.396E+00	3.501E+00	3.265E-01	0.293

Total number of lines in spectrum 73
 Number of unidentified lines 40
 Number of lines tentatively identified by NID 33 45.21%

Nuclide Type : NATURAL

Nuclide	Hlife	Decay	Wtd Mean		Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
			Uncorrected pCi/GRAM	Decay Corr pCi/GRAM			
K-40	1.28E+09Y	1.00	2.895E+01	2.895E+01	0.682E+01	23.55	
TL-208	1.41E+10Y	1.00	7.778E-01	7.778E-01	3.961E-01	50.93	
PB-210	22.26Y	1.00	6.700E+01	6.720E+01	1.061E+01	15.80	
BI-212	1.41E+10Y	1.00	2.222E+00	2.222E+00	2.748E+00	123.69	
BI-214	1602.00Y	1.00	1.077E+02	1.078E+02	0.067E+02	6.23	
PB-214	1602.00Y	1.00	1.087E+02	1.087E+02	0.090E+02	8.26	
RA-224	1.41E+10Y	1.00	2.051E+02	2.051E+02	0.229E+02	11.17	
RA-226	1602.00Y	1.00	1.913E+02	1.913E+02	3.507E+02	183.37	
TH-234	4.47E+09Y	1.00	5.380E+01	5.380E+01	1.057E+01	19.64	
Total Activity :			7.656E+02	7.658E+02			

Nuclide Type : FISSION

Nuclide	Hlife	Decay	Wtd Mean		Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
			Uncorrected pCi/GRAM	Decay Corr pCi/GRAM			
CD-109	464.00D	1.05	1.597E+02	1.681E+02	0.265E+02	15.74	
SN-126	1.00E+05Y	1.00	1.605E+01	1.605E+01	0.233E+01	14.55	
I-131	8.04D	19.8	2.653E-01	5.250E+00	6.505E+00	123.90	
CS-137	30.17Y	1.00	2.396E-01	2.401E-01	1.717E-01	71.49	
CE-141	32.50D	2.09	1.150E+00	2.407E+00	1.467E+00	60.95	
NP-237	2.14E+06Y	1.00	4.708E+01	4.708E+01	0.681E+01	14.46	
Total Activity :			2.245E+02	2.392E+02			

Nuclide Type : ACTIVATION

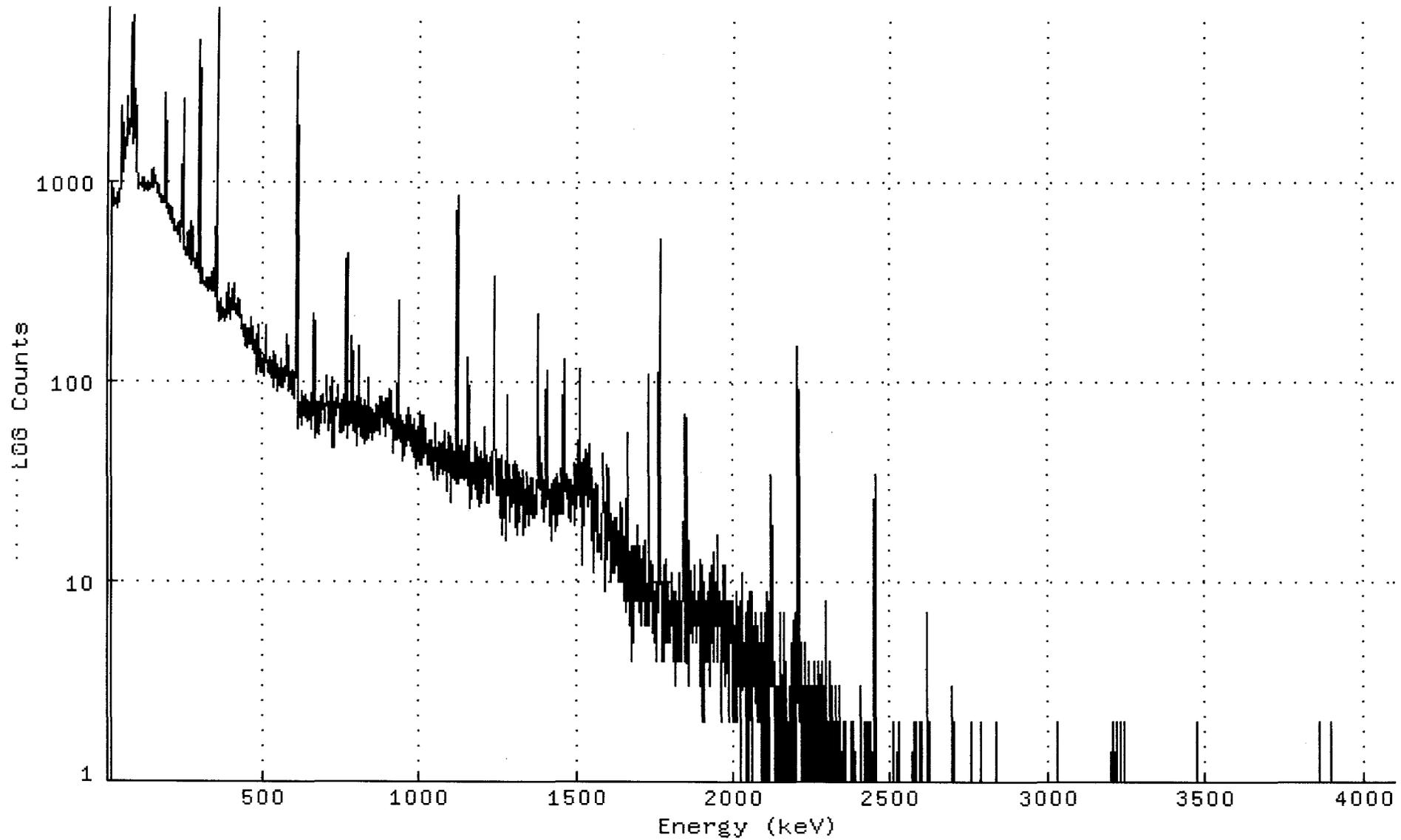
Nuclide	Hlife	Decay	Wtd Mean		Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
			Uncorrected pCi/GRAM	Decay Corr pCi/GRAM			
LU-173	1.37Y	1.05	6.835E+00	7.171E+00	2.513E+00	35.05	
Total Activity :			6.835E+00	7.171E+00			

Grand Total Activity : 9.969E+02 1.012E+03

Flags: "K" = Keyline not found
 "E" = Manually edited

"M" = Manually accepted
 "A" = Nuclide specific abn. limit

Spectrum : DKA100:[GAMMA.SCUSR.ARCHIVE]SMP_111106810_GE4_GAS1102_172290.CNF;1
Title :
Sample Title: S12-22-31-111107
Start Time: 11-DEC-2011 14:32 Sample Time: 7-NOV-2011 00:00: Energy Offset: 6.91748E-01
Real Time : 0 01:00:15.89 Sample ID : 1111068-10 Energy Slope : 9.99279E-01
Live Time : 0 01:00:00.00 Sample Type: SOIL Energy Quad : 0.00000E+00



Channel Contents for DKA100: [GAMMA.SCUSR.ARCHIVE] SMP_111106810_GE4_GAS1102_1722

Channel

1:	0	0	0	0	0	0	0	0
9:	0	0	0	0	0	5	660	961
17:	853	882	861	781	771	756	809	789
25:	768	807	820	792	742	743	795	874
33:	786	730	807	816	869	898	900	912
41:	904	985	1016	1081	1545	2361	1614	1102
49:	1233	1286	1231	1516	1634	1320	1276	1294
57:	1395	1492	1512	1689	1775	2189	2611	2038
65:	1692	1799	2031	1961	1836	1886	1865	1995
73:	2626	4695	4776	5777	6628	3076	1885	1849
81:	1766	1534	2047	2030	1621	2331	2866	1971
89:	1848	1727	1657	2353	2034	1445	1170	1011
97:	1024	1069	973	932	909	966	963	954
105:	962	968	952	938	975	968	1037	1041
113:	1028	947	917	896	970	1030	998	933
121:	951	962	949	919	924	882	959	984
129:	981	946	923	936	919	963	961	942
137:	953	996	926	965	982	994	1138	1160
145:	1015	933	973	949	1010	981	981	1010
153:	1062	1063	988	939	900	873	960	927
161:	867	926	955	864	897	841	851	840
169:	819	853	825	853	782	800	839	787
177:	794	802	790	843	789	792	876	970
185:	2211	2778	1434	815	759	767	762	728
193:	695	724	761	757	757	688	727	725
201:	722	756	637	721	737	702	637	613
209:	618	674	567	608	643	587	611	599
217:	583	592	594	587	586	561	560	611
225:	560	546	615	539	554	514	499	543
233:	555	549	709	734	584	662	648	737
241:	1975	2573	1168	475	452	475	464	468
249:	426	428	431	447	426	466	485	499
257:	511	544	566	417	422	433	410	424
265:	408	379	384	422	627	634	554	484
273:	414	446	427	400	409	387	377	385
281:	411	363	393	376	364	370	364	434
289:	371	353	369	372	568	2566	4994	2674
297:	599	304	379	385	336	367	334	362
305:	315	308	320	309	302	302	306	311
313:	308	328	331	296	316	296	300	281
321:	297	291	323	301	327	322	311	290
329:	314	325	286	303	299	326	315	280
337:	333	365	317	322	280	302	282	272
345:	264	285	294	328	338	1062	5299	7459
353:	2863	404	242	200	230	216	228	246
361:	221	202	239	257	217	255	204	229
369:	213	209	224	225	234	224	220	220
377:	217	197	209	225	224	229	233	209
385:	250	261	299	286	304	255	217	231
393:	235	205	235	232	213	242	277	227
401:	284	290	265	266	305	294	291	226
409:	237	241	215	243	234	230	224	226
417:	261	213	238	237	242	239	242	208
425:	222	252	223	233	200	201	206	190

433:	205	183	175	192	180	173	180	166
441:	166	176	149	191	154	175	166	184
449:	167	170	148	173	182	176	179	172
457:	156	152	173	155	192	207	183	166
465:	158	153	164	145	166	188	149	159
473:	148	159	158	139	158	147	166	172
481:	168	138	108	124	149	153	190	174
489:	132	144	113	110	120	126	131	110
497:	124	122	130	118	125	117	106	124
505:	109	106	129	141	152	177	191	160
513:	127	119	120	111	111	117	127	109
521:	124	113	117	119	131	123	113	104
529:	117	110	108	117	133	142	132	128
537:	93	133	111	112	104	114	136	92
545:	104	122	111	122	100	89	100	115
553:	95	115	100	104	123	115	130	94
561:	125	99	99	104	115	106	112	94
569:	103	104	119	111	102	101	109	113
577:	110	110	114	170	126	125	149	134
585:	102	90	93	103	110	93	104	94
593:	85	108	88	114	92	100	112	105
601:	81	103	106	103	104	106	209	1520
609:	4427	3852	949	103	58	87	101	77
617:	66	71	70	79	76	68	65	83
625:	71	61	77	90	68	84	69	84
633:	84	74	85	67	79	66	83	75
641:	70	77	63	74	68	80	69	74
649:	78	72	64	68	64	82	58	87
657:	74	83	69	67	92	67	82	106
665:	215	188	102	79	67	52	59	79
673:	55	64	73	66	61	60	66	54
681:	55	72	74	84	77	77	81	62
689:	69	84	86	74	82	72	75	69
697:	72	62	74	64	73	81	107	100
705:	85	87	75	79	57	64	77	78
713:	78	79	69	64	77	62	86	104
721:	86	66	74	53	47	47	67	75
729:	79	71	60	74	67	82	70	74
737:	71	79	79	74	88	96	88	78
745:	67	55	77	67	72	55	65	63
753:	66	80	62	55	85	71	56	62
761:	65	67	67	60	65	90	186	393
769:	436	175	90	70	52	53	67	65
777:	60	65	70	79	63	62	74	83
785:	113	167	120	75	60	56	65	78
793:	55	68	75	78	56	61	65	78
801:	66	48	67	71	101	149	132	83
809:	79	59	66	57	65	63	53	82
817:	70	66	52	72	69	70	63	63
825:	69	80	69	79	49	51	70	75
833:	72	64	64	52	52	81	103	83
841:	74	73	55	57	66	57	64	70
849:	62	52	72	70	51	59	64	67
857:	58	56	69	69	67	76	56	64
865:	76	74	68	69	69	57	61	68
873:	69	67	83	76	54	78	72	74
881:	83	70	71	72	78	64	79	59
889:	69	76	68	80	66	81	53	70
897:	82	72	72	64	70	71	71	92
905:	65	61	69	72	67	76	89	80

913:	89	64	50	64	61	44	51	69
921:	61	61	51	53	58	53	56	51
929:	52	60	55	70	139	252	208	102
937:	65	53	50	68	61	51	60	53
945:	63	48	48	40	61	51	50	59
953:	53	61	50	43	52	60	50	55
961:	58	67	60	74	71	61	59	53
969:	48	49	68	55	54	48	50	47
977:	47	54	45	57	65	60	49	42
985:	57	50	37	47	56	47	45	56
993:	50	47	40	49	54	59	51	41
1001:	67	70	42	46	38	61	47	47
1009:	38	46	67	51	45	52	42	43
1017:	67	44	57	58	49	53	52	47
1025:	38	44	42	42	45	51	46	41
1033:	43	38	50	36	46	41	51	45
1041:	49	35	32	38	41	42	47	45
1049:	41	40	46	59	62	36	32	42
1057:	44	47	44	40	34	50	43	39
1065:	35	40	37	45	49	44	47	34
1073:	50	49	39	38	42	49	39	40
1081:	56	49	45	28	39	30	46	39
1089:	36	44	39	36	35	45	36	55
1097:	37	38	45	25	53	42	33	38
1105:	42	44	49	33	45	32	45	42
1113:	39	42	39	31	50	60	199	618
1121:	843	401	106	57	31	38	48	35
1129:	36	37	36	33	51	50	43	46
1137:	33	51	32	45	32	40	32	39
1145:	36	36	37	38	48	34	30	49
1153:	37	37	124	132	71	43	23	31
1161:	30	37	26	30	35	28	39	32
1169:	33	36	34	35	39	32	29	30
1177:	30	36	39	50	30	45	47	40
1185:	40	35	26	42	24	34	35	38
1193:	25	45	39	31	35	33	25	30
1201:	29	41	31	35	39	33	43	47
1209:	59	34	35	40	35	25	26	43
1217:	34	39	39	33	25	35	36	36
1225:	37	33	33	31	42	33	32	36
1233:	29	33	36	55	99	261	334	168
1241:	55	38	32	30	41	27	37	32
1249:	27	28	33	41	33	38	41	35
1257:	25	28	21	33	43	30	34	17
1265:	25	24	21	30	28	24	32	22
1273:	16	23	32	28	40	29	35	41
1281:	79	85	61	36	20	32	38	26
1289:	36	26	30	31	31	24	32	26
1297:	25	30	38	29	31	30	28	35
1305:	26	40	29	20	17	26	29	27
1313:	25	38	25	30	35	26	28	20
1321:	28	29	32	33	26	31	27	28
1329:	36	30	24	17	20	28	22	19
1337:	23	29	25	22	22	35	34	22
1345:	22	22	30	19	30	30	22	33
1353:	29	28	23	28	31	22	29	33
1361:	21	26	27	26	27	27	27	21
1369:	25	22	25	27	32	24	24	36
1377:	107	216	201	95	37	36	32	29
1385:	40	53	42	37	28	23	27	37

1393:	28	21	23	26	23	32	20	29
1401:	56	92	64	45	24	27	61	113
1409:	113	69	29	26	29	19	26	27
1417:	25	21	27	16	25	24	31	31
1425:	22	32	29	23	26	19	33	18
1433:	24	24	31	19	31	34	25	29
1441:	32	30	23	24	30	22	24	29
1449:	27	24	32	22	37	31	26	34
1457:	23	22	30	57	128	127	86	37
1465:	28	32	27	31	34	29	26	31
1473:	21	32	22	23	28	28	32	30
1481:	25	20	26	25	27	25	28	26
1489:	28	30	19	28	24	31	32	39
1497:	23	30	34	31	38	34	28	27
1505:	32	37	41	34	77	116	82	35
1513:	24	33	23	20	25	39	12	33
1521:	29	41	31	27	19	25	39	33
1529:	32	40	46	27	33	33	40	33
1537:	24	39	49	40	36	31	26	43
1545:	28	37	27	24	16	18	19	23
1553:	15	11	21	29	20	20	18	31
1561:	18	21	20	30	19	14	27	15
1569:	15	17	14	17	15	17	16	17
1577:	19	21	17	13	19	25	44	41
1585:	41	27	23	22	15	25	9	21
1593:	20	13	25	38	21	25	29	37
1601:	23	24	22	16	21	17	22	10
1609:	19	22	20	18	20	11	19	16
1617:	16	15	19	20	21	11	14	14
1625:	15	14	21	17	12	18	15	10
1633:	16	15	13	10	16	25	15	17
1641:	17	16	16	13	18	18	10	23
1649:	12	11	8	14	10	10	15	7
1657:	21	9	16	19	35	55	50	14
1665:	15	9	7	12	6	9	12	14
1673:	8	4	9	13	15	5	9	5
1681:	10	15	12	11	12	15	13	8
1689:	10	9	8	11	16	13	19	11
1697:	15	7	8	9	11	15	6	8
1705:	9	7	7	11	15	8	10	13
1713:	9	9	9	8	8	10	6	16
1721:	6	7	7	9	6	6	6	14
1729:	51	94	108	67	20	8	9	9
1737:	8	10	12	12	12	12	9	7
1745:	6	5	8	7	7	9	8	4
1753:	7	9	8	6	10	7	8	11
1761:	9	10	57	224	467	515	264	51
1769:	15	6	4	10	9	6	5	4
1777:	4	10	12	7	9	5	8	13
1785:	8	5	7	10	6	6	5	6
1793:	9	5	8	6	8	7	7	8
1801:	6	11	7	6	9	4	6	9
1809:	7	5	6	3	9	6	9	4
1817:	5	4	8	5	6	5	8	4
1825:	5	6	10	7	11	4	4	8
1833:	5	8	6	8	8	10	14	20
1841:	9	8	10	10	4	14	34	69
1849:	64	35	13	5	4	5	3	4
1857:	7	7	3	16	8	8	8	10
1865:	6	6	5	6	9	9	5	8

1873:	6	12	11	7	11	6	7	6
1881:	5	8	8	7	6	6	8	6
1889:	9	6	8	13	12	3	4	8
1897:	6	12	6	8	7	2	4	2
1905:	10	8	4	3	6	8	4	6
1913:	4	5	6	4	4	9	5	5
1921:	4	9	5	7	11	3	10	5
1929:	5	7	12	6	6	6	4	14
1937:	9	11	8	10	8	6	8	7
1945:	8	8	17	4	4	6	5	7
1953:	7	9	6	9	8	5	2	5
1961:	8	5	7	8	4	7	6	10
1969:	12	7	5	3	12	7	7	6
1977:	8	8	7	5	6	2	7	8
1985:	5	6	6	5	8	6	6	6
1993:	8	8	7	5	7	4	2	4
2001:	3	3	2	3	3	6	4	3
2009:	3	2	9	8	7	4	7	6
2017:	7	3	8	5	8	5	3	1
2025:	8	6	11	7	4	5	4	4
2033:	3	3	4	5	2	1	3	4
2041:	5	7	7	5	8	3	4	1
2049:	4	9	6	6	6	9	3	7
2057:	3	1	1	9	4	3	3	3
2065:	3	6	5	3	4	5	7	3
2073:	2	4	6	6	2	2	2	2
2081:	3	4	5	3	4	4	1	3
2089:	7	5	2	4	2	3	5	1
2097:	1	1	2	4	3	3	7	3
2105:	9	2	3	1	0	1	6	3
2113:	2	4	8	3	3	11	32	34
2121:	26	14	3	4	4	3	5	2
2129:	1	2	4	0	1	3	2	3
2137:	2	1	0	1	1	2	2	3
2145:	3	2	4	1	7	3	4	0
2153:	2	3	3	3	3	4	2	7
2161:	5	1	2	1	2	2	2	4
2169:	2	2	0	2	2	2	1	0
2177:	2	3	2	1	2	0	4	4
2185:	3	1	2	5	3	1	1	3
2193:	4	6	7	2	4	0	3	2
2201:	3	11	16	66	122	151	56	15
2209:	2	2	2	4	1	3	5	3
2217:	2	1	0	2	2	3	2	2
2225:	1	1	1	5	1	1	1	1
2233:	3	2	1	0	0	1	1	0
2241:	2	4	1	2	3	1	1	2
2249:	3	2	0	1	1	2	4	1
2257:	2	3	2	1	1	3	2	1
2265:	2	1	4	1	1	2	1	4
2273:	3	1	2	0	0	1	0	1
2281:	0	1	4	3	0	1	2	1
2289:	2	3	2	1	2	4	7	8
2297:	2	1	1	0	0	0	1	4
2305:	2	2	1	2	0	0	2	2
2313:	1	3	1	0	0	2	2	2
2321:	2	2	0	0	1	1	3	0
2329:	1	2	0	2	0	3	1	2
2337:	2	0	2	0	1	1	0	0
2345:	0	2	0	1	2	1	2	2

2353:	0	0	2	0	0	0	1	0
2361:	0	0	1	0	1	0	1	0
2369:	1	0	0	1	2	0	1	0
2377:	1	0	0	1	2	2	0	1
2385:	1	0	0	0	1	0	0	1
2393:	1	1	0	0	1	1	1	0
2401:	1	0	3	2	0	0	0	1
2409:	1	1	1	0	1	1	0	2
2417:	1	1	0	1	1	0	0	2
2425:	1	0	2	0	0	0	0	1
2433:	2	1	1	2	1	0	1	1
2441:	1	0	0	0	0	0	7	20
2449:	34	30	12	4	1	0	0	0
2457:	1	0	0	0	1	1	1	1
2465:	0	0	0	0	0	0	0	1
2473:	1	1	0	0	0	0	0	0
2481:	0	1	1	0	1	0	0	0
2489:	0	1	0	0	0	0	0	0
2497:	1	1	1	0	0	0	0	0
2505:	0	0	2	0	0	1	0	0
2513:	0	1	1	1	0	0	0	0
2521:	0	2	0	0	0	0	0	0
2529:	0	1	0	1	0	0	0	0
2537:	0	0	0	0	1	1	0	0
2545:	0	1	0	1	0	0	0	0
2553:	0	0	1	1	0	0	0	0
2561:	0	0	0	0	0	0	0	1
2569:	0	0	2	0	0	0	1	1
2577:	0	0	0	0	2	1	0	0
2585:	0	0	1	1	0	0	0	0
2593:	1	2	0	0	1	0	2	0
2601:	0	0	1	0	1	0	0	0
2609:	0	0	0	0	0	2	3	7
2617:	7	4	0	1	0	1	0	0
2625:	0	0	1	0	0	0	1	0
2633:	0	0	1	0	0	1	0	0
2641:	0	1	0	0	0	1	0	0
2649:	0	1	0	0	0	0	0	1
2657:	0	0	0	0	0	1	0	0
2665:	0	0	0	1	0	0	1	0
2673:	0	0	0	0	0	0	1	0
2681:	0	0	0	0	0	1	0	0
2689:	1	0	0	0	0	2	3	2
2697:	0	2	0	0	0	0	0	0
2705:	0	1	0	0	1	0	0	1
2713:	0	0	1	0	0	0	0	0
2721:	0	0	0	0	1	1	1	0
2729:	0	0	0	0	0	0	0	0
2737:	0	0	0	0	1	1	0	0
2745:	0	0	0	0	0	0	0	0
2753:	0	0	0	2	0	1	1	0
2761:	0	0	1	0	0	0	0	0
2769:	0	0	0	0	0	0	0	0
2777:	0	0	0	0	0	0	0	2
2785:	1	0	0	0	0	0	0	0
2793:	0	0	1	0	0	0	0	0
2801:	0	0	0	0	0	0	0	0
2809:	0	0	0	0	0	0	1	0
2817:	1	0	0	0	0	1	0	0
2825:	0	0	0	0	0	0	0	0

2833:	0	0	0	2	0	0	1	0
2841:	0	0	0	0	0	0	0	0
2849:	0	0	0	1	0	0	0	0
2857:	1	0	0	0	1	1	0	1
2865:	0	0	0	1	0	0	0	1
2873:	0	0	1	0	0	0	0	0
2881:	0	0	0	0	0	0	0	0
2889:	0	0	0	0	0	0	0	0
2897:	0	0	0	0	0	0	0	0
2905:	0	1	0	0	0	0	0	1
2913:	0	0	0	0	0	0	1	1
2921:	0	0	0	1	1	0	1	0
2929:	0	0	1	0	0	1	0	0
2937:	0	0	0	0	0	0	0	0
2945:	0	0	0	0	0	0	0	0
2953:	0	0	0	0	0	1	0	1
2961:	1	1	0	0	0	0	0	0
2969:	0	0	0	0	0	0	0	0
2977:	0	0	1	0	1	0	0	0
2985:	0	0	1	0	0	0	0	0
2993:	0	0	0	0	0	0	0	0
3001:	0	0	1	0	0	0	1	0
3009:	0	0	0	0	0	0	0	0
3017:	0	1	0	0	1	0	0	0
3025:	1	0	0	2	0	0	0	0
3033:	0	0	0	0	0	0	0	1
3041:	0	0	0	0	1	0	0	0
3049:	0	0	0	1	0	0	0	0
3057:	1	1	0	1	0	0	0	0
3065:	0	0	0	0	0	1	0	0
3073:	0	1	0	0	0	0	0	0
3081:	0	1	0	0	1	0	1	0
3089:	0	0	0	0	0	0	0	0
3097:	1	0	1	0	0	0	1	0
3105:	0	0	0	0	0	0	0	0
3113:	0	0	0	0	0	0	0	0
3121:	1	0	0	0	0	0	0	0
3129:	0	0	0	0	0	0	0	1
3137:	0	0	0	0	0	0	0	0
3145:	0	0	0	0	1	0	0	1
3153:	0	0	0	0	0	0	0	0
3161:	0	0	0	0	1	0	0	0
3169:	0	0	0	0	0	0	0	0
3177:	0	0	0	0	0	0	0	1
3185:	0	0	0	0	0	0	0	0
3193:	0	0	0	0	0	0	0	0
3201:	0	2	0	0	1	2	0	0
3209:	1	0	0	0	0	2	0	0
3217:	0	0	0	0	0	0	0	0
3225:	0	0	0	0	0	2	0	0
3233:	1	0	0	0	0	0	0	2
3241:	0	0	0	0	1	0	0	0
3249:	0	1	0	0	0	0	0	0
3257:	0	0	0	0	0	1	1	0
3265:	0	0	0	0	0	0	0	0
3273:	1	0	0	0	0	0	0	0
3281:	0	1	1	0	0	0	0	0
3289:	0	0	0	0	0	0	0	0
3297:	0	0	0	1	1	0	1	1
3305:	0	1	0	0	0	0	0	0

3313:	0	0	0	0	0	0	1	1
3321:	1	0	1	0	0	0	0	0
3329:	0	1	0	0	0	0	0	0
3337:	0	0	0	0	0	0	0	0
3345:	1	0	0	1	0	0	0	1
3353:	0	0	0	0	0	0	0	1
3361:	0	0	1	0	0	0	0	1
3369:	0	0	0	0	0	0	0	0
3377:	0	0	0	0	0	0	0	0
3385:	0	0	1	0	0	0	0	0
3393:	1	0	0	0	0	0	0	0
3401:	0	0	0	1	0	0	0	0
3409:	0	0	1	0	0	0	0	0
3417:	0	0	0	0	0	0	1	0
3425:	0	0	0	0	0	1	0	0
3433:	0	1	0	0	0	0	1	0
3441:	0	0	0	0	1	0	1	0
3449:	0	0	0	0	0	0	0	0
3457:	0	0	0	1	0	0	0	1
3465:	0	0	0	0	1	0	2	0
3473:	1	0	0	0	0	0	0	0
3481:	0	0	0	0	0	0	0	0
3489:	0	0	0	0	0	0	1	0
3497:	0	0	0	0	0	1	0	1
3505:	1	0	0	0	0	0	0	0
3513:	0	0	0	0	1	0	0	0
3521:	0	0	0	0	0	1	1	0
3529:	0	0	1	0	0	0	1	0
3537:	0	0	0	0	0	0	0	0
3545:	0	0	0	0	0	0	0	0
3553:	0	1	0	0	0	1	0	0
3561:	0	0	0	0	0	0	0	0
3569:	0	0	0	0	0	0	0	0
3577:	1	0	0	0	0	0	0	0
3585:	0	0	0	0	1	0	0	0
3593:	0	0	0	0	0	0	0	0
3601:	0	0	0	0	0	0	1	0
3609:	1	1	0	0	0	0	0	0
3617:	0	1	0	0	0	0	1	0
3625:	0	0	0	0	0	0	1	1
3633:	0	0	0	0	0	0	0	0
3641:	0	0	0	0	0	0	0	0
3649:	0	0	0	0	0	0	0	0
3657:	0	0	0	0	0	0	0	0
3665:	0	0	0	0	0	0	0	0
3673:	0	0	0	1	0	0	0	0
3681:	0	0	0	0	0	0	0	0
3689:	0	0	0	0	0	0	1	0
3697:	0	0	0	0	0	0	0	0
3705:	0	1	0	0	0	0	0	1
3713:	0	0	0	0	0	0	0	0
3721:	0	0	0	0	0	0	0	0
3729:	0	0	0	0	0	0	0	1
3737:	0	0	0	1	0	0	0	0
3745:	0	0	0	0	0	1	0	0
3753:	0	0	0	0	0	0	1	0
3761:	1	0	0	0	0	0	1	0
3769:	0	0	0	0	0	0	0	1
3777:	0	0	0	0	0	0	0	0
3785:	0	0	0	0	0	0	0	0

3793:	0	1	0	0	0	0	0	0	0
3801:	0	0	0	0	0	0	0	0	0
3809:	0	0	0	0	0	0	0	0	0
3817:	0	0	0	0	0	0	0	0	0
3825:	0	0	0	0	0	0	0	0	0
3833:	0	0	1	1	1	0	0	0	0
3841:	0	0	0	0	1	0	0	0	0
3849:	0	0	0	0	0	0	0	0	1
3857:	1	0	0	0	2	1	0	0	0
3865:	0	0	0	0	1	0	0	0	0
3873:	0	0	0	0	1	0	1	0	0
3881:	0	0	0	0	0	0	0	0	0
3889:	0	0	0	0	0	0	0	0	2
3897:	0	1	0	0	0	0	0	0	0
3905:	0	0	0	0	0	0	0	0	1
3913:	0	0	0	0	0	0	1	0	0
3921:	0	0	0	0	1	0	1	0	0
3929:	0	0	0	0	0	1	0	0	0
3937:	1	0	1	0	0	0	0	0	0
3945:	0	0	0	0	0	1	0	0	0
3953:	0	0	0	0	0	1	0	0	0
3961:	1	0	0	0	0	0	0	0	0
3969:	1	0	0	0	0	0	0	0	0
3977:	0	0	0	0	0	0	0	0	0
3985:	0	0	1	0	0	0	0	0	0
3993:	0	0	0	0	0	0	0	0	0
4001:	0	0	0	1	0	0	0	0	0
4009:	0	0	0	0	0	0	0	0	0
4017:	0	0	1	1	0	0	0	0	0
4025:	0	0	0	0	0	0	0	0	0
4033:	1	0	0	0	0	1	0	0	0
4041:	0	0	0	0	0	1	0	0	0
4049:	0	1	0	0	0	0	0	0	0
4057:	0	1	0	0	0	0	0	0	0
4065:	1	0	0	0	0	0	0	0	1
4073:	0	1	0	0	0	0	0	0	0
4081:	0	0	0	0	0	0	0	0	0
4089:	0	0	0	0	0	0	0	0	0

Sample ID : 1111068-11

Page : 1
Acquisition date : 11-DEC-2011 15:42:19

AG
12/11/11

VAX/VMS Peak Search Report Generated 11-DEC-2011 16:43:11.27

Configuration : DKA100:[GAMMA.SCUSR.ARCHIVE]SMP_111106811_GE1_GAS1102_172295.
 Analyses by : PEAK V16.9 ENBACK V1.6 PEAKEFF V2.2
 Client ID : S12-33-31-111107
 Deposition Date :
 Sample Date : 7-NOV-2011 00:00:00. Acquisition date : 11-DEC-2011 15:42:19
 Sample ID : 1111068-11 Sample Quantity : 4.36500E+02 GRAM
 Sample type : SOIL Sample Geometry : 0
 Detector name : GE1 Detector Geometry: GAS-1102
 Elapsed live time: 0 01:00:00.00 Elapsed real time: 0 01:00:37.28 1.0%
 Start channel : 5 End channel : 4096
 Sensitivity : 2.40000 Gaussian : 15.00000
 Critical level : Yes

Post-NID Peak Search Report

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides
0	46.67*	7456	14548	1.80	46.30	44	5	5.4		PB-210
0	52.89	1744	25577	1.11	52.52	50	7	30.7		
0	63.38*	8367	31274	1.38	63.01	61	6	7.0		TH-234
2	68.08	1039	5333	1.70	67.71	67	16	16.1	2.13E+03	
2	75.37*	17302	20763	1.41	75.00	67	16	2.9		AM-243
10	87.64	6055	15966	1.15	87.28	85	12	5.9	6.07E+02	NP-237 SN-126 CD-109
10	92.61*	11774	37890	2.97	92.25	85	12	6.5		
0	98.67	1169	13924	1.78	98.31	97	5	31.0		
0	113.27*	1113	16177	1.69	112.91	111	6	36.7		
0	121.98	330	12833	2.57	121.62	120	5	103.5		CO-57
0	144.14*	1840	19543	1.40	143.79	141	7	25.6		U-235 CE-141
0	154.73	1215	16352	1.78	154.38	152	6	33.8		
0	163.84	713	12149	1.90	163.49	162	5	47.1		U-235
0	186.36*	17943	22633	1.48	186.01	181	10	3.5		RA-226
0	196.48	305	10112	3.48	196.13	195	5	99.8		
0	205.51	568	11086	1.82	205.17	203	6	59.4		U-235
1	236.46	1342	7524	1.75	236.12	233	14	20.0	4.82E+00	
1	242.36	15299	5805	1.48	242.03	233	14	2.1		RA-224
5	256.62	957	8514	2.38	256.29	253	10	33.2	1.67E+00	
5	259.39	1327	7109	1.88	259.05	253	10	21.3		
8	270.52	2885	10092	3.08	270.19	266	12	13.1	3.57E+00	
8	275.15	731	5599	1.62	274.82	266	12	32.1		
0	285.45	267	6650	1.27	285.12	283	6	97.4		
4	295.57*	34728	5142	1.57	295.25	290	13	1.2	1.53E+01	PB-214
4	299.56	1442	7185	2.41	299.24	290	13	25.1		
0	323.86	327	5190	1.52	323.54	322	6	70.5		RA-223
0	329.71	357	6026	1.91	329.39	327	7	72.9		LA-140
0	338.67*	253	4084	2.04	338.36	337	5	77.0		
2	352.26*	60575	3589	1.64	351.94	346	15	0.9	4.81E+01	PB-214
2	355.96	1616	3734	2.04	355.65	346	15	18.7		
0	388.41	760	6792	3.32	388.11	384	10	41.2		
1	402.13	436	3988	1.89	401.83	398	11	47.3	1.57E+00	RN-219
1	405.42	411	3349	1.82	405.12	398	11	44.2		PB-211

AG
12/12/11

Sample ID : 1111068-11

Acquisition date : 11-DEC-2011 15:42:19

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides
0	427.68	401	4172	3.49	427.38	425	7	54.6		
0	454.88*	409	3696	1.46	454.59	451	8	52.5		
0	461.72	293	3024	2.11	461.43	459	7	63.6		
0	480.90	361	2398	1.95	480.61	478	6	44.2		
0	487.30	577	2542	1.46	487.01	484	7	30.2		LA-140
0	511.23*	523	3219	3.07	510.95	506	9	40.3		
0	534.24	237	2761	1.79	533.97	530	8	77.8		
0	580.77	202	2319	1.20	580.51	577	7	80.1		
0	598.16	103	1439	1.68	597.90	596		5112.2		
3	609.60*	43551	1364	1.75	609.35	603	17	1.0	1.36E+01	BI-214
3	613.64	1209	1724	2.46	613.39	603	17	25.8		
0	665.81	1135	2196	2.01	665.56	661	10	16.6		
0	703.46*	362	1620	1.76	703.22	700	7	38.5		
0	720.48	506	1978	2.20	720.25	716	10	34.1		
0	742.06	304	1650	1.68	741.83	738	8	47.6		
0	768.48	4301	2526	2.16	768.25	762	12	5.6		
0	786.30	996	1788	1.89	786.08	782	9	16.6		
0	806.53	875	1393	2.10	806.32	803	7	15.7		
1	826.41	77	616	1.79	826.20	825	10	86.9	1.41E+00	
1	832.03	150	1030	1.77	831.82	825	10	65.8		PB-211
0	839.15	502	1674	1.49	838.94	835	8	29.6		
0	911.64*	217	1552	2.64	911.45	908	8	64.6		
0	934.34	2199	2203	1.91	934.15	928	12	9.5		
0	963.97	221	1246	1.61	963.79	961	7	54.5		
0	988.07	88	873	3.61	987.89	986		6107.8		
0	1000.94*	723	1910	1.86	1000.76	995	12	25.3		PA-234M
0	1051.46	152	1163	1.91	1051.29	1049	8	79.0		
0	1069.76	142	1133	1.94	1069.60	1066	8	83.8		
0	1104.52	108	1021	1.54	1104.37	1101		8104.5		
0	1120.57	9186	1776	2.14	1120.42	1115	11	2.7		BI-214
0	1134.40	175	1045	2.12	1134.25	1131	8	65.8		
0	1155.19	1085	1454	2.17	1155.05	1149	12	15.3		
0	1181.61	125	981	1.84	1181.47	1178	8	88.6		
0	1208.19	323	1107	2.36	1208.05	1203	11	41.4		
0	1238.44	3380	1183	2.15	1238.32	1233	11	5.2		
0	1254.48	300	1146	3.21	1254.36	1249	12	46.7		
0	1281.15	897	1283	2.25	1281.03	1274	13	17.8		
2	1377.91	2465	613	2.38	1377.81	1371	20	5.2	2.97E+00	
2	1385.53	459	697	2.64	1385.43	1371	20	22.2		
0	1401.50	587	920	2.30	1401.41	1397	9	20.4		
0	1408.27	1229	766	2.19	1408.18	1405	8	9.7		
0	1415.20	59	459	1.08	1415.11	1413		5112.9		
2	1460.99*	948	629	2.23	1460.91	1455	13	11.0	1.18E+00	K-40
0	1490.16	78	704	1.74	1490.08	1486		8119.9		
0	1509.30	1111	1215	2.44	1509.23	1504	12	13.9		
3	1538.71	265	820	2.98	1538.65	1534	14	40.7	1.28E+00	
3	1543.77	267	587	2.44	1543.71	1534	14	33.3		
0	1583.42	307	603	2.34	1583.36	1579	9	31.0		
0	1596.93	370	865	6.82	1596.88	1589	15	36.3		LA-140
2	1661.47	559	291	2.54	1661.43	1656	19	13.5	1.45E+00	
2	1666.16	52	270	2.51	1666.12	1656		19131.9		

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides
0	1683.49	99	337	2.41	1683.45	1679	10	71.9		
0	1693.40	157	321	2.85	1693.37	1689	10	45.8		
0	1729.74	1642	435	2.32	1729.71	1723	13	7.2		
0	1764.68*	7840	380	2.45	1764.67	1758	14	2.5		BI-214
0	1783.27	41	166	3.57	1783.25	1779		8114.1		
0	1838.68	147	158	2.94	1838.68	1835	8	33.9		
0	1847.55	1086	288	2.39	1847.55	1843	12	8.7		
0	1873.63	112	225	2.30	1873.64	1869	10	53.6		
0	1894.07	238	291	8.95	1894.08	1886	16	34.6		
0	1937.10	79	198	2.79	1937.12	1933	9	68.0		
0	2016.65	44	111	1.14	2016.68	2014	7	83.9		
0	2036.31	37	67	2.01	2036.35	2034	6	76.6		
0	2054.04	37	86	2.41	2054.08	2050	9	97.2		
0	2118.50	538	106	2.58	2118.55	2113	13	11.7		
0	2204.18*	2144	224	2.55	2204.25	2188	26	5.7		BI-214
0	2239.77	19	35	2.97	2239.86	2236		11124.5		
0	2259.59*	24	23	2.25	2259.67	2256	9	83.7		
0	2292.99	141	25	2.34	2293.08	2287	11	21.7		
0	2447.54	604	17	2.85	2447.66	2441	14	8.7		
0	2615.00*	45	7	3.94	2615.16	2610	13	42.1		
0	2694.26	13	2	2.39	2694.43	2690	9	70.5		
0	2769.41	12	2	1.67	2769.60	2765	8	71.1		
0	2892.64	5	1	1.08	2892.86	2889		6120.9		
0	2979.22	7	2	1.90	2979.45	2975	7	97.7		

Total number of lines in spectrum 108
 Number of unidentified lines 61
 Number of lines tentatively identified by NID 47 43.52%

Nuclide Type : NATURAL

Nuclide	Hlife	Decay	Wtd Mean		Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
			Uncorrected pCi/GRAM	Decay Corr pCi/GRAM			
K-40	1.28E+09Y	1.00	3.039E+01	3.039E+01	0.439E+01	14.45	
PB-210	22.26Y	1.00	1.212E+02	1.215E+02	0.124E+02	10.22	
PB-211	3.28E+04Y	1.00	1.453E+01	1.453E+01	0.555E+01	38.18	
BI-214	1602.00Y	1.00	1.775E+02	1.775E+02	0.089E+02	5.01	
PB-214	1602.00Y	1.00	1.812E+02	1.812E+02	0.118E+02	6.51	
RN-219	3.28E+04Y	1.00	8.334E+00	8.334E+00	4.014E+00	48.16	
RA-223	3.28E+04Y	1.00	8.925E+00	8.925E+00	6.345E+00	71.09	
RA-224	1.41E+10Y	1.00	3.352E+02	3.352E+02	0.314E+02	9.36	
RA-226	1602.00Y	1.00	4.076E+02	4.076E+02	7.467E+02	183.18	
PA-234M	4.47E+09Y	1.00	2.031E+02	2.031E+02	0.545E+02	26.84	
TH-234	4.47E+09Y	1.00	1.313E+02	1.313E+02	0.144E+02	10.97	
U-235	7.04E+08Y	1.00	1.010E+01	1.010E+01	0.399E+01	39.49	
Total Activity :			1.629E+03	1.630E+03			

Nuclide Type : FISSION

Nuclide	Hlife	Decay	Wtd Mean		Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
			Uncorrected pCi/GRAM	Decay Corr pCi/GRAM			
CO-57	270.90D	1.09	2.411E-01	2.635E-01	2.741E-01	104.01	
CD-109	464.00D	1.05	9.551E+01	1.006E+02	0.137E+02	13.60	
SN-126	1.00E+05Y	1.00	9.599E+00	9.599E+00	1.172E+00	12.21	
CE-141	32.50D	2.09	2.526E+00	5.292E+00	1.948E+00	36.81	
NP-237	2.14E+06Y	1.00	2.816E+01	2.816E+01	0.341E+01	12.11	
Total Activity :			1.360E+02	1.439E+02			

Nuclide Type : ACTIVATION

Nuclide	Hlife	Decay	Wtd Mean		Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
			Uncorrected pCi/GRAM	Decay Corr pCi/GRAM			
LA-140	12.79D	6.55	1.618E+00	1.060E+01	0.246E+01	23.20	
AM-243	7380.00Y	1.00	1.534E+01	1.534E+01	0.151E+01	9.85	
Total Activity :			1.696E+01	2.594E+01			

Grand Total Activity : 1.782E+03 1.800E+03

Flags: "K" = Keyline not found
 "E" = Manually edited

"M" = Manually accepted
 "A" = Nuclide specific abn. limit

Nuclide Type: NATURAL

Nuclide	Energy	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error	Status
K-40	1460.81	10.67*	5.027E-01	3.039E+01	3.039E+01	14.45	OK
Final Mean for 1 Valid Peaks = 3.039E+01+/- 4.392E+00 (14.45%)							
PB-210	46.50	4.05*	2.613E+00	1.212E+02	1.215E+02	10.22	OK
Final Mean for 1 Valid Peaks = 1.215E+02+/- 1.242E+01 (10.22%)							
PB-211	404.84	2.90*	1.375E+00	1.772E+01	1.772E+01	45.15	OK
	831.96	2.90	7.710E-01	1.157E+01	1.157E+01	66.48	OK
Final Mean for 2 Valid Peaks = 1.453E+01+/- 5.546E+00 (38.18%)							
BI-214	609.31	46.30*	9.927E-01	1.630E+02	1.630E+02	10.17	OK
	1120.29	15.10	6.104E-01	1.714E+02	1.714E+02	9.51	OK
	1764.49	15.80	4.432E-01	1.926E+02	1.926E+02	9.33	OK
	2204.22	4.98	3.885E-01	1.906E+02	1.906E+02	11.25	OK
Final Mean for 4 Valid Peaks = 1.775E+02+/- 8.884E+00 (5.01%)							
PB-214	295.21	19.19	1.736E+00	1.793E+02	1.793E+02	9.18	OK
	351.92	37.19*	1.529E+00	1.832E+02	1.832E+02	9.23	OK
Final Mean for 2 Valid Peaks = 1.812E+02+/- 1.179E+01 (6.51%)							
RN-219	401.80	6.50*	1.383E+00	8.334E+00	8.334E+00	48.16	OK
Final Mean for 1 Valid Peaks = 8.334E+00+/- 4.014E+00 (48.16%)							
RA-223	323.87	3.88*	1.626E+00	8.925E+00	8.925E+00	71.09	OK
Final Mean for 1 Valid Peaks = 8.925E+00+/- 6.345E+00 (71.09%)							
RA-224	240.98	3.95*	1.987E+00	3.352E+02	3.352E+02	9.36	OK
Final Mean for 1 Valid Peaks = 3.352E+02+/- 3.138E+01 (9.36%)							
RA-226	186.21	3.28*	2.308E+00	4.076E+02	4.076E+02	183.18	OK
Final Mean for 1 Valid Peaks = 4.076E+02+/- 7.467E+02 (183.18%)							
PA-234M	1001.03	0.92*	6.658E-01	2.031E+02	2.031E+02	26.84	OK
Final Mean for 1 Valid Peaks = 2.031E+02+/- 5.451E+01 (26.84%)							
TH-234	63.29	3.80*	2.884E+00	1.313E+02	1.313E+02	10.97	OK
Final Mean for 1 Valid Peaks = 1.313E+02+/- 1.440E+01 (10.97%)							

Sample ID : 1111068-11

Acquisition date : 11-DEC-2011 15:42:19

Nuclide Type: NATURAL

Nuclide	Energy	%Abn	%Eff	Uncorrected Decay Corr 2-Sigma		%Error	Status
				pCi/GRAM	pCi/GRAM		
U-235	143.76	10.50*	2.601E+00	1.159E+01	1.159E+01	31.36	<<WM Interf
	163.35	4.70	2.462E+00	1.060E+01	1.060E+01	50.86	OK
	205.31	4.70	2.188E+00	9.494E+00	9.494E+00	62.42	OK

Final Mean for 2 Valid Peaks = 1.010E+01+/- 3.987E+00 (39.49%)

Nuclide Type: FISSION

Nuclide	Energy	%Abn	%Eff	Uncorrected Decay Corr 2-Sigma		%Error	Status
				pCi/GRAM	pCi/GRAM		
CO-57	122.06	85.51*	2.753E+00	2.411E-01	2.635E-01	104.01	OK
	136.48	10.60	2.653E+00	-----	Line Not Found	-----	Absent

Final Mean for 1 Valid Peaks = 2.635E-01+/- 2.741E-01 (104.01%)

CD-109	88.03	3.72*	2.931E+00	9.551E+01	1.006E+02	13.60	OK
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Final Mean for 1 Valid Peaks = 1.006E+02+/- 1.369E+01 (13.60%)

SN-126	87.57	37.00*	2.932E+00	9.599E+00	9.599E+00	12.21	OK
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Final Mean for 1 Valid Peaks = 9.599E+00+/- 1.172E+00 (12.21%)

CE-141	145.44	48.40*	2.589E+00	2.526E+00	5.292E+00	36.81	OK
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Final Mean for 1 Valid Peaks = 5.292E+00+/- 1.948E+00 (36.81%)

NP-237	86.50	12.60*	2.935E+00	2.816E+01	2.816E+01	12.11	OK
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Final Mean for 1 Valid Peaks = 2.816E+01+/- 3.410E+00 (12.11%)

Nuclide Type: ACTIVATION

Nuclide	Energy	%Abn	%Eff	Uncorrected Decay Corr 2-Sigma		%Error	Status
				pCi/GRAM	pCi/GRAM		
LA-140	328.77	20.50	1.608E+00	1.860E+00	1.218E+01	73.50	OK
	487.03	45.50	1.189E+00	1.833E+00	1.200E+01	31.76	OK
	815.85	23.50	7.833E-01	-----	Line Not Found	-----	Absent
	1596.49	95.49*	4.731E-01	1.407E+00	9.215E+00	37.42	OK

Final Mean for 3 Valid Peaks = 1.060E+01+/- 2.459E+00 (23.20%)

AM-243	74.67	66.00*	2.939E+00	1.534E+01	1.534E+01	9.85	OK
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Final Mean for 1 Valid Peaks = 1.534E+01+/- 1.511E+00 (9.85%)

Nuclide Line Activity Report (continued)
Sample ID : 1111068-11

Page : 7
Acquisition date : 11-DEC-2011 15:42:19

Flag: "*" = Keyline

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.039E+01	4.392E+00	3.837E+00	3.253E-01	7.920
CO-57	2.635E-01	2.741E-01	4.023E-01	3.883E-02	0.655
CD-109	1.006E+02	1.369E+01	1.159E+01	1.346E+00	8.679
SN-126	9.599E+00	1.172E+00	1.106E+00	1.099E-01	8.681
LA-140	1.060E+01	2.459E+00	2.395E+00	1.965E-01	4.425
CE-141	5.292E+00	1.948E+00	1.500E+00	3.917E-01	3.528
PB-210	1.215E+02	1.242E+01	8.176E+00	6.311E-01	14.864
PB-211	1.453E+01	5.546E+00	1.199E+01	9.970E-01	1.211
BI-214	1.775E+02	8.884E+00	6.806E-01	6.330E-02	260.750
PB-214	1.812E+02	1.179E+01	8.534E-01	7.058E-02	212.313
RN-219	8.334E+00	4.014E+00	5.316E+00	4.407E-01	1.568
RA-223	8.925E+00	6.345E+00	8.392E+00	6.921E-01	1.063
RA-224	3.352E+02	3.138E+01	8.439E+00	6.910E-01	39.719
RA-226	4.076E+02	7.467E+02	1.073E+01	1.965E+01	37.985
PA-234M	2.031E+02	5.451E+01	4.135E+01	3.351E+00	4.912
TH-234	1.313E+02	1.440E+01	1.062E+01	7.871E-01	12.359
U-235	1.010E+01	3.987E+00	3.283E+00	5.788E-01	3.076
NP-237	2.816E+01	3.410E+00	3.562E+00	3.496E-01	7.906
AM-243	1.534E+01	1.511E+00	6.512E-01	5.542E-02	23.559

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-2.998E-01		3.176E+00	4.890E+00	4.312E-01	-0.061
NA-22	7.728E-02		2.679E-01	3.985E-01	3.261E-02	0.194
AL-26	8.598E-02		1.505E-01	2.564E-01	2.048E-02	0.335
TI-44	6.500E-01	+	1.194E-01	4.434E-01	3.474E-02	1.466
SC-46	-2.306E-01		3.128E-01	5.150E-01	4.122E-02	-0.448
V-48	-1.122E-01		1.134E+00	1.687E+00	1.364E-01	-0.066
CR-51	-1.145E+00		5.436E+00	7.787E+00	6.789E-01	-0.147
MN-54	2.956E-01		3.396E-01	4.173E-01	3.541E-02	0.708
CO-56	-2.682E-01		3.439E-01	5.048E-01	4.234E-02	-0.531
CO-58	-9.906E-02		3.362E-01	5.025E-01	4.365E-02	-0.197
FE-59	-1.474E-01		7.828E-01	1.154E+00	1.029E-01	-0.128
CO-60	1.101E-01		2.675E-01	4.006E-01	3.275E-02	0.275
ZN-65	9.038E-01		6.082E-01	9.327E-01	7.643E-02	0.969
SE-75	-3.397E-01		5.240E-01	6.544E-01	5.373E-02	-0.519
RB-82	-1.323E+00		5.019E+00	6.867E+00	6.104E-01	-0.193
RB-83	-2.846E-01		5.471E-01	8.832E-01	1.401E-01	-0.322
KR-85	1.110E+02		4.939E+01	7.732E+01	6.963E+00	1.435
SR-85	6.986E-01		3.109E-01	4.867E-01	4.383E-02	1.435
Y-88	4.558E-01		2.276E-01	3.901E-01	3.099E-02	1.169
NB-93M	-7.761E+01		1.772E+01	1.291E-01	2.872E-02	-601.366
NB-94	1.676E-01		2.326E-01	3.944E-01	3.224E-02	0.425
NB-95	9.989E+00		1.133E+00	1.164E+00	1.043E-01	8.579
ZR-95	-4.499E-01		5.612E-01	8.845E-01	8.704E-02	-0.509
RU-103	-5.390E-02		3.735E-01	6.382E-01	9.158E-02	-0.084

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RU-106	6.521E-01		2.160E+00	3.322E+00	4.590E-01	0.196
AG-108M	4.079E-01		2.525E-01	3.927E-01	3.596E-02	1.039
AG-110M	-1.498E-03		2.408E-01	3.669E-01	3.426E-02	-0.004
SN-113	6.208E-01		4.248E-01	6.667E-01	5.657E-02	0.931
TE123M	1.401E-01		3.960E-01	5.128E-01	4.245E-02	0.273
SB-124	1.576E-01		4.150E-01	5.105E-01	4.743E-02	0.309
I-125	-4.345E+00		4.675E+00	7.636E+00	6.927E-01	-0.569
SB-125	1.826E+00	+	1.012E+00	1.273E+00	1.103E-01	1.434
SB-126	1.297E+01	+	4.606E+00	4.844E+00	4.441E-01	2.677
I-129	-1.004E+00		4.147E-01	6.480E-01	6.803E-02	-1.549
I-131	-3.157E-01		4.857E+00	7.562E+00	6.248E-01	-0.042
BA-133	3.074E+00	+	7.114E-01	8.566E-01	1.112E-01	3.589
CS-134	7.843E-01		3.077E-01	3.916E-01	3.647E-02	2.003
CS-135	7.475E+00		1.619E+00	2.260E+00	1.840E-01	3.307
CS-136	1.743E+00		1.941E+00	2.961E+00	2.499E-01	0.589
CS-137	-7.048E-02		2.451E-01	3.704E-01	3.464E-02	-0.190
LA-138	2.454E-01		3.631E-01	6.072E-01	4.990E-02	0.404
CE-139	6.760E-01		3.524E-01	5.195E-01	4.153E-02	1.301
BA-140	-6.064E-01		5.544E+00	8.488E+00	2.824E+00	-0.071
CE-144	-5.528E-01		2.053E+00	3.289E+00	3.040E-01	-0.168
PM-144	8.556E-02		2.259E-01	3.464E-01	3.209E-02	0.247
PM-145	-7.500E-01		1.050E+00	1.524E+00	9.927E-01	-0.492
PM-146	1.419E+00	+	7.565E-01	8.700E-01	7.544E-02	1.631
ND-147	8.714E+00		1.408E+01	2.186E+01	1.985E+00	0.399
EU-152	2.756E+01	+	4.101E+00	4.557E+00	4.825E-01	6.048
GD-153	-1.415E-01		9.971E-01	1.486E+00	1.454E-01	-0.095
EU-154	2.097E-01		7.408E-01	1.102E+00	9.016E-02	0.190
EU-155	1.164E+01	+	1.409E+00	1.502E+00	1.474E-01	7.749
EU-156	-4.808E+00		1.111E+01	1.646E+01	3.761E+00	-0.292
HO-166M	-3.802E-02		4.351E-01	6.021E-01	5.540E-02	-0.063
HF-172	-1.407E+00		1.986E+00	2.921E+00	2.779E-01	-0.482
LU-172	7.918E+00		1.313E+01	2.211E+01	1.809E+00	0.358
LU-173	1.004E+01		1.437E+00	1.902E+00	1.545E-01	5.279
HF-175	-2.190E-01		4.500E-01	5.564E-01	4.601E-02	-0.394
LU-176	-5.933E-02		2.384E-01	3.419E-01	2.806E-02	-0.174
TA-182	9.156E+01	+	8.711E+00	4.697E+00	3.845E-01	19.495
IR-192	2.960E-01		5.962E-01	9.274E-01	8.124E-02	0.319
HG-203	2.292E-01		5.677E-01	7.211E-01	6.028E-02	0.318
BI-207	-6.479E-02		1.968E-01	3.336E-01	3.073E-02	-0.194
TL-208	1.605E+00		7.323E-01	1.143E+00	1.057E-01	1.405
BI-210M	8.523E-01		5.782E-01	7.435E-01	6.064E-02	1.146
BI-212	-1.423E-01		1.846E+00	2.793E+00	2.552E-01	-0.051
PB-212	3.966E+00		6.186E-01	8.478E-01	6.942E-02	4.678
RA-225	-3.756E+00		3.508E+00	5.274E+00	4.413E-01	-0.712
TH-227	9.965E+00	+	2.191E+00	3.227E+00	2.642E-01	3.088
AC-228	1.880E+00	+	1.227E+00	1.512E+00	1.202E-01	1.243
TH-230	1.657E+02	+	3.043E+01	1.130E+02	8.827E+00	1.467
PA-231	2.962E+01		1.036E+01	1.500E+01	1.229E+00	1.974

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-231	2.151E+00		1.821E+00	3.014E+00	3.685E-01	0.714
PA-233	-2.380E-01		1.289E+00	2.013E+00	4.491E-01	-0.118
PA-234	1.722E-01		9.934E-01	1.598E+00	1.490E-01	0.108
AM-241	1.761E+00		8.104E-01	1.081E+00	7.657E-02	1.629
CM-243	1.887E+00		1.668E+00	2.433E+00	1.972E-01	0.775

Total number of lines in spectrum 108
 Number of unidentified lines 61
 Number of lines tentatively identified by NID 47 43.52%

Nuclide Type : NATURAL

Nuclide	Hlife	Decay	Wtd Mean		Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
			Uncorrected pCi/GRAM	Decay Corr pCi/GRAM			
K-40	1.28E+09Y	1.00	3.039E+01	3.039E+01	0.439E+01	14.45	
PB-210	22.26Y	1.00	1.212E+02	1.215E+02	0.124E+02	10.22	
PB-211	3.28E+04Y	1.00	1.453E+01	1.453E+01	0.555E+01	38.18	
BI-214	1602.00Y	1.00	1.775E+02	1.775E+02	0.089E+02	5.01	
PB-214	1602.00Y	1.00	1.812E+02	1.812E+02	0.118E+02	6.51	
RN-219	3.28E+04Y	1.00	8.334E+00	8.334E+00	4.014E+00	48.16	
RA-223	3.28E+04Y	1.00	8.925E+00	8.925E+00	6.345E+00	71.09	
RA-224	1.41E+10Y	1.00	3.352E+02	3.352E+02	0.314E+02	9.36	
RA-226	1602.00Y	1.00	4.076E+02	4.076E+02	7.467E+02	183.18	
PA-234M	4.47E+09Y	1.00	2.031E+02	2.031E+02	0.545E+02	26.84	
TH-234	4.47E+09Y	1.00	1.313E+02	1.313E+02	0.144E+02	10.97	
U-235	7.04E+08Y	1.00	1.010E+01	1.010E+01	0.399E+01	39.49	
Total Activity :			1.629E+03	1.630E+03			

Nuclide Type : FISSION

Nuclide	Hlife	Decay	Wtd Mean		Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
			Uncorrected pCi/GRAM	Decay Corr pCi/GRAM			
CO-57	270.90D	1.09	2.411E-01	2.635E-01	2.741E-01	104.01	
CD-109	464.00D	1.05	9.551E+01	1.006E+02	0.137E+02	13.60	
SN-126	1.00E+05Y	1.00	9.599E+00	9.599E+00	1.172E+00	12.21	
CE-141	32.50D	2.09	2.526E+00	5.292E+00	1.948E+00	36.81	
NP-237	2.14E+06Y	1.00	2.816E+01	2.816E+01	0.341E+01	12.11	
Total Activity :			1.360E+02	1.439E+02			

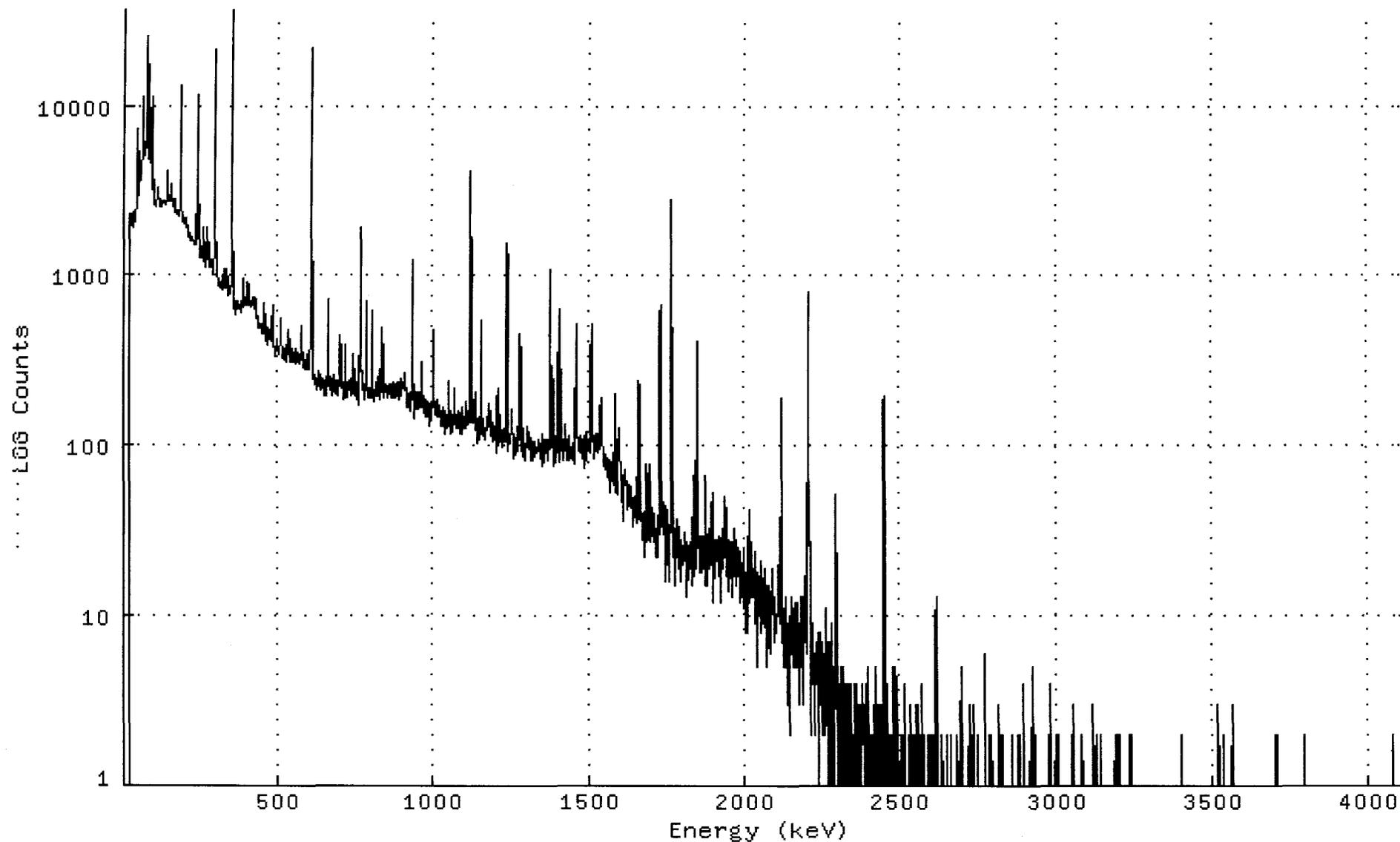
Nuclide Type : ACTIVATION

Nuclide	Hlife	Decay	Wtd Mean		Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
			Uncorrected pCi/GRAM	Decay Corr pCi/GRAM			
LA-140	12.79D	6.55	1.618E+00	1.060E+01	0.246E+01	23.20	
AM-243	7380.00Y	1.00	1.534E+01	1.534E+01	0.151E+01	9.85	
Total Activity :			1.696E+01	2.594E+01			

Grand Total Activity : 1.782E+03 1.800E+03

Flags: "K" = Keyline not found "M" = Manually accepted
 "E" = Manually edited "A" = Nuclide specific abn. limit

Spectrum : DKA100:[GAMMA.SCUSR.ARCHIVE]SMP_111106811_GE1_GAS1102_172295.CNF;1
Title :
Sample Title: S12-33-31-111107
Start Time: 11-DEC-2011 15:42 Sample Time: 7-NOV-2011 00:00: Energy Offset: 3.84457E-01
Real Time : 0 01:00:37.28 Sample ID : 1111068-11 Energy Slope : 9.99792E-01
Live Time : 0 01:00:00.00 Sample Type: SOIL Energy Quad : 0.00000E+00



Channel Contents for DKA100: [GAMMA.SCUSR.ARCHIVE] SMP_111106811_GE1_GAS1102_1722

Channel

1:	0	0	0	0	0	0	0	0
9:	0	0	0	0	0	0	0	0
17:	0	1	1717	2251	2044	2103	2231	2164
25:	2097	2020	2026	1940	1960	1930	1965	2338
33:	1987	1902	2090	2241	2240	2118	2198	2368
41:	2441	2636	2652	2801	3267	7070	5972	2943
49:	3149	3908	3334	3664	5220	3935	3603	3657
57:	3839	4170	4415	4929	5092	5785	11138	7622
65:	5126	4970	5728	6022	5247	5316	5413	5514
73:	5776	10282	16712	10684	25242	11527	6126	5648
81:	5999	4775	5178	7369	4522	4919	9527	6777
89:	4763	6138	4346	8686	11022	4783	4136	3125
97:	3036	3541	3225	2724	2567	2645	2662	2525
105:	2603	2654	2537	2589	2905	2749	2876	3002
113:	3236	2838	2710	2638	2596	2553	2537	2517
121:	2718	2698	2699	2531	2655	2671	2618	2668
129:	2724	2662	2703	2614	2569	2614	2694	2596
137:	2620	2654	2704	2700	2866	2697	3169	4058
145:	3133	2719	2754	2843	2779	2913	2846	2842
153:	2841	3373	3122	2722	2667	2619	2641	2610
161:	2489	2566	2746	2765	2376	2409	2326	2346
169:	2328	2358	2250	2283	2275	2280	2245	2311
177:	2206	2232	2292	2253	2308	2355	2439	2553
185:	5110	12716	6157	2359	2333	2306	2190	2048
193:	2061	2021	2131	2142	2158	2007	1979	1997
201:	1891	1934	1923	1918	2169	2077	1778	1789
209:	1795	1770	1818	1674	1743	1698	1575	1693
217:	1661	1605	1594	1671	1634	1615	1607	1562
225:	1629	1581	1519	1557	1492	1551	1490	1556
233:	1483	1553	1760	2257	1818	1608	1659	1628
241:	3981	11225	4342	1538	1465	1467	1352	1243
249:	1299	1254	1254	1278	1247	1313	1357	1585
257:	1532	1537	1869	1459	1212	1098	1193	1130
265:	1154	1092	1134	1273	1816	1883	1846	1501
273:	1218	1314	1543	1193	1122	1116	1122	1129
281:	1187	1107	1181	1175	1148	1210	1101	1102
289:	1065	997	1044	1121	1305	4428	20685	11966
297:	1736	1397	1386	1553	1038	1008	1044	963
305:	952	903	876	929	850	846	886	910
313:	858	904	895	838	852	818	818	906
321:	859	881	952	1075	921	852	836	887
329:	964	1065	948	847	836	911	924	848
337:	819	971	920	872	758	854	803	830
345:	817	763	828	861	1070	1902	13664	36625
353:	10836	1439	1231	1368	1035	702	647	638
361:	588	602	644	628	606	693	697	633
369:	646	694	653	686	656	636	650	656
377:	642	650	696	628	647	594	667	665
385:	649	749	905	839	935	749	679	686
393:	696	684	725	656	654	658	711	683
401:	794	907	729	780	885	779	660	662
409:	693	696	646	661	700	667	704	654
417:	692	664	712	729	665	688	676	654
425:	633	710	726	716	661	572	555	571

433:	585	522	566	495	528	492	509	502
441:	503	515	489	494	496	481	502	494
449:	456	488	470	518	475	555	686	503
457:	449	452	446	468	513	580	507	415
465:	388	452	457	425	463	488	424	445
473:	431	468	473	420	439	415	417	565
481:	574	413	375	386	412	462	656	449
489:	387	367	334	380	357	364	365	385
497:	367	360	381	414	381	380	363	339
505:	374	344	364	388	403	503	553	516
513:	414	346	367	328	377	321	337	366
521:	317	354	341	355	367	341	305	345
529:	354	313	343	365	419	471	364	375
537:	348	361	316	357	309	346	421	389
545:	345	316	357	332	327	307	347	326
553:	311	304	317	311	369	335	325	326
561:	329	302	306	353	313	310	315	332
569:	303	331	333	325	343	323	340	329
577:	325	314	324	505	386	326	341	328
585:	316	304	288	280	287	299	317	292
593:	277	299	279	299	307	320	341	275
601:	299	299	308	347	331	397	644	4602
609:	21484	16179	2202	652	663	635	361	275
617:	254	248	227	260	244	238	236	240
625:	234	225	223	246	208	234	231	242
633:	273	255	242	221	240	223	254	235
641:	213	209	220	215	243	239	225	245
649:	232	236	218	235	238	196	217	226
657:	251	240	196	223	235	223	229	284
665:	697	719	279	226	225	214	210	207
673:	215	241	217	225	228	209	193	211
681:	242	223	252	255	205	206	240	238
689:	235	197	210	211	196	201	201	209
697:	235	243	240	232	223	290	439	342
705:	245	215	241	227	234	232	233	198
713:	182	216	184	210	190	213	322	384
721:	283	240	232	222	188	209	227	226
729:	207	209	220	207	215	239	218	217
737:	196	195	212	246	232	343	281	244
745:	201	229	194	222	233	194	217	231
753:	279	201	218	200	204	215	190	169
761:	201	203	201	229	266	417	709	1868
769:	1776	396	268	269	225	213	220	213
777:	213	198	202	227	208	185	195	221
785:	428	689	430	229	213	194	207	202
793:	197	191	198	217	199	209	194	198
801:	188	212	191	194	334	610	513	239
809:	187	207	203	178	207	203	218	205
817:	193	193	194	221	252	236	230	214
825:	196	250	219	209	185	210	253	279
833:	238	203	210	206	233	298	487	304
841:	233	205	218	196	191	222	205	212
849:	203	214	225	220	191	206	187	194
857:	207	213	199	219	211	228	203	218
865:	192	203	218	191	221	231	223	216
873:	233	189	224	215	191	206	221	220
881:	227	221	225	219	219	230	192	218
889:	207	183	186	234	224	209	195	216
897:	229	242	221	223	212	224	231	222
905:	228	221	211	215	220	238	261	250

913:	191	203	195	165	203	200	166	194
921:	197	189	200	189	181	189	160	198
929:	191	178	203	191	551	1227	782	277
937:	184	226	194	182	181	176	141	174
945:	191	193	203	173	168	204	174	186
953:	168	176	162	172	167	205	178	182
961:	167	198	216	306	235	178	167	194
969:	163	174	153	169	170	160	146	178
977:	172	164	157	184	173	150	147	179
985:	147	148	174	176	169	165	129	159
993:	156	139	165	171	168	172	183	271
1001:	475	330	208	165	160	168	163	181
1009:	152	151	156	145	150	148	148	145
1017:	184	156	146	170	145	164	155	139
1025:	147	144	128	160	139	130	131	168
1033:	154	149	132	160	116	127	145	148
1041:	147	147	127	124	144	148	152	128
1049:	141	139	182	240	198	129	138	148
1057:	159	117	144	129	138	145	149	118
1065:	151	139	148	155	178	215	176	137
1073:	127	151	136	129	136	130	147	129
1081:	150	158	125	141	125	131	130	117
1089:	131	154	138	125	117	135	167	136
1097:	136	137	129	128	129	148	125	155
1105:	181	132	131	128	126	134	155	145
1113:	133	157	145	135	144	293	1261	4063
1121:	3444	807	254	234	182	161	135	138
1129:	148	137	142	140	166	203	173	134
1137:	135	127	121	141	126	121	137	132
1145:	102	131	137	107	124	142	148	122
1153:	149	269	545	450	189	116	144	141
1161:	112	118	121	119	107	115	124	123
1169:	115	119	125	147	122	126	138	122
1177:	131	129	129	147	149	177	145	117
1185:	113	121	132	123	109	115	129	134
1193:	104	120	123	108	130	125	110	113
1201:	111	108	90	118	99	128	174	212
1209:	155	136	100	118	100	104	116	104
1217:	106	151	129	109	105	119	96	117
1225:	119	125	124	109	105	118	120	111
1233:	111	115	104	184	636	1552	1161	311
1241:	137	136	116	93	111	115	112	106
1249:	105	110	127	124	148	162	138	117
1257:	115	110	99	91	84	87	95	88
1265:	98	89	87	94	129	92	110	107
1273:	101	100	110	110	117	115	115	275
1281:	449	322	130	115	121	101	93	124
1289:	86	109	85	102	101	81	89	97
1297:	83	103	97	96	98	100	129	109
1305:	116	104	95	118	106	107	110	99
1313:	88	81	87	111	85	105	94	87
1321:	93	102	103	82	87	106	91	87
1329:	99	99	97	97	89	90	98	93
1337:	106	102	98	92	95	109	96	85
1345:	94	96	91	89	76	94	96	82
1353:	99	116	92	109	86	84	80	94
1361:	89	89	98	107	94	101	101	109
1369:	97	82	94	92	100	94	103	245
1377:	819	1085	513	171	125	103	96	125
1385:	245	245	149	98	91	76	98	92

1393:	113	88	86	105	80	99	91	172
1401:	343	353	181	108	80	142	330	626
1409:	446	171	107	93	101	103	102	130
1417:	82	95	99	83	95	108	93	93
1425:	106	131	96	94	85	87	92	82
1433:	109	86	113	87	88	81	95	81
1441:	91	84	88	97	90	83	82	93
1449:	83	92	103	96	104	77	93	83
1457:	78	93	151	317	513	291	143	111
1465:	129	96	95	93	94	108	104	114
1473:	98	94	90	109	105	91	107	98
1481:	83	95	100	74	97	84	98	97
1489:	107	118	86	101	91	81	97	101
1497:	108	102	105	92	109	98	100	91
1505:	95	121	135	297	515	448	184	117
1513:	104	120	99	113	102	84	90	87
1521:	94	110	96	103	109	116	90	94
1529:	89	108	92	116	100	95	95	117
1537:	111	165	174	131	112	112	165	187
1545:	106	89	76	82	87	77	80	76
1553:	88	85	75	74	71	84	72	82
1561:	65	70	82	70	64	79	70	53
1569:	81	70	74	79	62	66	62	67
1577:	59	72	68	67	64	125	197	167
1585:	92	77	53	76	51	73	79	68
1593:	79	107	108	86	82	93	125	115
1601:	54	56	59	46	58	58	66	57
1609:	61	57	36	63	60	60	68	71
1617:	59	70	55	59	54	55	55	42
1625:	59	50	58	55	44	58	50	45
1633:	43	46	44	57	52	46	33	47
1641:	41	43	47	44	49	45	47	38
1649:	40	64	38	35	37	42	44	37
1657:	52	48	44	113	235	219	102	46
1665:	48	55	36	40	40	36	32	29
1673:	34	22	41	34	40	32	31	40
1681:	36	27	61	78	60	46	28	29
1689:	42	35	39	61	77	70	44	49
1697:	34	27	32	36	43	35	29	32
1705:	39	40	27	38	35	34	28	31
1713:	22	23	32	29	35	30	39	22
1721:	29	38	26	35	40	30	52	166
1729:	586	655	274	91	43	46	33	37
1737:	46	38	30	38	34	44	34	26
1745:	27	16	33	26	42	21	20	29
1753:	25	32	16	29	29	30	34	31
1761:	52	156	860	2630	2785	1162	208	105
1769:	89	59	22	28	23	15	32	24
1777:	15	23	23	22	22	37	25	31
1785:	28	19	19	19	26	33	23	26
1793:	26	16	20	22	23	21	20	26
1801:	22	25	22	27	23	31	21	31
1809:	22	27	23	25	26	22	13	20
1817:	24	26	20	20	21	25	27	22
1825:	26	19	20	38	15	21	30	32
1833:	22	23	17	21	43	67	67	45
1841:	25	20	19	30	50	136	408	373
1849:	172	63	47	25	26	25	29	18
1857:	20	29	20	19	27	19	18	29
1865:	29	29	19	19	26	24	15	40

1873:	66	50	38	30	26	22	23	21
1881:	30	15	25	31	20	19	32	27
1889:	34	39	43	20	22	38	41	53
1897:	48	39	31	31	12	22	20	28
1905:	21	27	23	28	21	23	25	26
1913:	26	29	19	24	19	18	24	12
1921:	26	18	21	28	25	32	24	19
1929:	25	22	32	27	22	22	35	40
1937:	50	37	28	25	18	22	17	26
1945:	24	18	14	25	28	14	19	27
1953:	18	24	20	26	27	23	13	23
1961:	18	26	17	32	28	30	27	22
1969:	18	28	23	15	20	25	25	21
1977:	25	17	22	19	20	14	17	24
1985:	20	12	15	17	13	14	17	16
1993:	18	24	15	25	15	16	15	8
2001:	17	18	17	13	14	8	15	16
2009:	26	29	25	26	12	19	21	20
2017:	42	18	16	19	13	20	22	13
2025:	19	17	13	13	18	16	16	10
2033:	9	15	20	24	14	15	16	5
2041:	17	15	15	12	17	10	10	12
2049:	11	8	12	13	21	20	14	11
2057:	14	9	10	10	10	14	14	13
2065:	19	10	7	10	11	9	15	9
2073:	5	8	9	14	11	15	10	6
2081:	11	14	11	13	9	11	11	19
2089:	14	13	14	11	12	13	9	7
2097:	12	9	9	8	8	9	10	10
2105:	11	14	11	12	19	21	11	9
2113:	9	9	14	16	89	183	187	75
2121:	26	7	11	10	8	7	8	5
2129:	5	5	13	6	7	8	8	9
2137:	6	6	8	3	4	2	6	8
2145:	10	8	8	12	7	13	6	7
2153:	8	10	5	7	5	7	11	7
2161:	9	10	8	12	5	6	7	7
2169:	12	6	5	7	6	5	9	3
2177:	8	7	5	9	8	13	10	3
2185:	11	5	13	9	10	7	14	15
2193:	17	8	11	13	9	8	11	6
2201:	26	139	490	792	500	158	35	26
2209:	27	18	2	16	3	7	6	9
2217:	5	6	7	4	6	3	3	2
2225:	3	5	4	6	6	7	5	5
2233:	6	4	2	1	8	5	8	4
2241:	6	4	4	3	7	4	5	5
2249:	5	5	2	6	5	4	2	3
2257:	5	6	11	8	5	3	5	1
2265:	4	4	6	7	2	7	3	5
2273:	1	6	4	6	1	3	9	4
2281:	2	1	5	2	3	4	2	4
2289:	6	8	12	26	51	32	17	7
2297:	1	2	6	5	2	3	1	4
2305:	3	3	3	5	5	1	3	5
2313:	2	4	1	0	5	4	2	2
2321:	4	4	4	1	3	1	4	3
2329:	4	4	4	2	4	1	3	3
2337:	1	2	2	0	0	4	2	0
2345:	2	2	1	1	2	2	1	3

2353:	0	4	1	3	2	2	4	3
2361:	1	2	2	0	0	3	1	2
2369:	3	3	3	0	1	3	2	4
2377:	3	2	3	3	1	1	3	1
2385:	1	1	1	2	1	4	0	1
2393:	2	5	1	3	2	2	2	1
2401:	1	0	1	2	2	2	1	0
2409:	2	2	0	3	1	1	1	3
2417:	1	1	5	0	1	0	1	3
2425:	3	3	2	1	0	3	2	1
2433:	1	0	1	2	2	3	2	2
2441:	1	1	5	5	17	79	177	194
2449:	107	18	7	9	1	0	2	1
2457:	4	1	1	0	0	2	0	2
2465:	2	0	2	1	0	2	1	2
2473:	1	0	5	0	1	3	0	1
2481:	2	5	0	5	4	1	3	1
2489:	2	0	1	0	0	1	1	0
2497:	2	0	0	0	1	0	1	0
2505:	0	2	2	0	0	2	1	4
2513:	1	1	1	0	1	1	1	1
2521:	0	1	2	0	0	2	1	1
2529:	3	1	0	1	2	0	1	1
2537:	2	0	0	1	1	1	0	2
2545:	0	0	2	0	0	3	1	3
2553:	1	0	0	1	1	0	1	0
2561:	1	1	2	0	0	4	1	1
2569:	0	1	0	1	0	2	1	0
2577:	1	1	0	0	1	0	1	1
2585:	0	1	2	1	0	0	1	2
2593:	1	0	0	0	0	1	1	2
2601:	0	0	1	2	1	1	1	2
2609:	2	1	1	3	9	13	11	11
2617:	4	1	1	1	1	0	0	0
2625:	0	0	0	0	1	1	2	1
2633:	1	1	1	1	1	0	1	0
2641:	0	1	0	1	0	1	0	1
2649:	2	1	0	0	1	0	0	0
2657:	0	0	0	2	0	0	1	0
2665:	0	1	0	0	0	0	0	0
2673:	1	0	0	0	1	0	1	2
2681:	1	1	1	0	0	0	0	1
2689:	0	0	1	0	2	5	4	2
2697:	1	0	1	0	1	0	0	0
2705:	0	1	0	0	1	0	1	0
2713:	0	0	1	1	0	3	0	1
2721:	1	0	1	0	0	1	2	1
2729:	2	0	0	0	3	0	1	0
2737:	0	1	0	0	1	1	1	0
2745:	2	1	0	0	0	0	0	0
2753:	0	0	1	1	0	1	0	1
2761:	1	0	1	0	1	1	0	1
2769:	3	6	2	0	0	1	1	1
2777:	0	0	0	0	1	0	2	1
2785:	0	0	0	0	0	0	2	0
2793:	1	0	0	0	1	0	1	1
2801:	1	1	0	0	1	1	0	0
2809:	0	0	0	0	0	3	1	1
2817:	0	1	0	2	0	0	0	0
2825:	2	0	0	0	0	1	0	0

2833:	0	1	0	0	0	0	0	0	0
2841:	1	1	0	0	1	0	0	0	0
2849:	1	0	0	0	0	2	2	0	0
2857:	0	0	1	0	0	0	0	0	0
2865:	1	0	0	1	0	1	0	0	0
2873:	2	0	0	2	0	1	2	0	0
2881:	2	1	0	0	1	1	0	0	0
2889:	0	0	1	1	4	0	1	1	1
2897:	0	0	0	1	0	1	0	0	0
2905:	0	0	0	0	0	1	0	0	0
2913:	0	0	2	0	1	0	2	0	0
2921:	5	1	1	0	0	1	0	0	0
2929:	0	1	2	0	1	0	0	1	1
2937:	0	0	0	0	0	1	0	0	0
2945:	0	1	0	0	0	0	0	0	0
2953:	1	1	0	0	0	0	0	0	0
2961:	0	1	1	0	0	0	1	1	1
2969:	1	1	2	0	0	1	0	0	0
2977:	1	2	4	2	0	0	0	0	0
2985:	0	0	0	0	0	1	0	0	0
2993:	1	2	1	0	0	0	0	2	2
3001:	0	0	0	0	2	0	0	0	0
3009:	0	0	0	0	0	0	1	0	0
3017:	0	0	0	1	0	0	0	1	1
3025:	0	0	0	0	0	0	0	0	0
3033:	1	0	0	0	0	0	0	0	0
3041:	0	0	0	0	0	0	2	2	2
3049:	0	0	0	1	1	3	1	0	0
3057:	1	0	0	0	0	0	0	0	0
3065:	0	0	0	0	0	0	0	0	0
3073:	1	0	0	0	0	0	2	0	0
3081:	1	1	0	1	0	0	0	0	0
3089:	1	0	0	0	0	1	0	0	0
3097:	1	1	0	0	0	0	0	0	0
3105:	0	0	0	0	1	1	1	0	0
3113:	0	0	0	3	0	0	0	0	0
3121:	0	0	0	2	0	0	0	0	0
3129:	0	1	0	0	0	1	1	1	1
3137:	0	0	2	1	0	0	0	0	0
3145:	0	0	0	0	1	1	0	0	0
3153:	0	0	0	0	0	0	1	0	0
3161:	1	0	1	0	1	0	0	0	0
3169:	0	0	0	0	1	0	0	1	1
3177:	0	1	0	0	0	0	0	0	0
3185:	2	0	1	0	0	0	0	0	0
3193:	0	0	2	0	0	0	2	2	2
3201:	1	0	0	1	0	0	0	1	1
3209:	0	1	0	1	0	0	1	1	1
3217:	0	0	0	0	1	0	0	0	0
3225:	0	0	0	1	2	0	0	0	0
3233:	0	1	0	0	2	0	0	0	0
3241:	0	0	0	0	0	0	0	0	0
3249:	0	0	1	0	1	0	0	0	0
3257:	0	0	0	1	0	0	0	0	0
3265:	0	0	0	0	0	0	1	0	0
3273:	0	0	0	0	0	0	0	0	0
3281:	0	0	0	0	0	0	1	0	0
3289:	0	0	0	0	0	0	1	0	0
3297:	0	0	1	0	0	0	0	0	0
3305:	0	0	0	0	1	0	0	0	0

3313:	0	0	0	0	0	0	1	0
3321:	1	0	0	0	0	0	1	0
3329:	0	0	0	0	0	0	0	1
3337:	0	1	0	0	0	1	0	1
3345:	0	0	1	0	0	0	0	0
3353:	0	0	0	1	0	0	0	0
3361:	0	0	0	0	0	0	0	0
3369:	0	1	0	0	0	0	0	0
3377:	0	0	0	1	0	0	1	0
3385:	0	0	0	0	0	0	1	0
3393:	0	0	0	0	2	0	0	0
3401:	0	0	0	0	0	0	0	0
3409:	0	0	1	0	0	0	0	0
3417:	0	0	0	0	1	0	0	0
3425:	0	0	0	0	0	0	0	0
3433:	0	0	0	0	0	0	0	0
3441:	0	0	0	0	0	0	0	0
3449:	0	0	0	1	0	0	1	0
3457:	1	0	0	0	0	0	0	0
3465:	0	0	0	1	0	0	0	0
3473:	0	0	0	0	0	0	0	0
3481:	0	0	1	0	0	1	0	0
3489:	1	0	0	0	0	0	0	0
3497:	0	0	0	0	0	0	0	0
3505:	1	0	0	0	0	0	1	0
3513:	0	0	3	0	0	0	0	1
3521:	0	0	0	0	0	0	0	0
3529:	0	0	0	0	2	0	0	0
3537:	0	0	1	0	0	0	0	0
3545:	1	0	1	0	0	0	0	0
3553:	0	0	0	0	0	0	3	0
3561:	1	0	0	1	0	0	0	0
3569:	0	0	0	0	0	0	0	0
3577:	0	0	0	0	1	0	0	0
3585:	0	0	0	0	1	0	0	0
3593:	0	0	0	0	0	0	0	0
3601:	0	0	0	0	0	0	0	0
3609:	0	0	0	0	0	0	0	0
3617:	0	0	0	0	0	0	0	0
3625:	1	1	0	0	0	0	0	1
3633:	0	1	0	0	0	1	0	0
3641:	0	0	0	0	1	0	0	0
3649:	0	0	0	0	0	0	0	0
3657:	0	0	1	1	0	0	0	0
3665:	0	0	0	0	0	0	0	0
3673:	0	0	0	0	0	1	0	1
3681:	0	1	0	0	0	1	0	0
3689:	0	0	0	0	0	0	0	0
3697:	0	0	0	2	0	0	2	1
3705:	0	0	1	0	1	0	0	0
3713:	1	0	0	0	0	0	1	0
3721:	0	0	1	0	0	0	1	0
3729:	0	0	0	0	0	0	0	1
3737:	1	0	0	0	0	0	0	0
3745:	0	0	0	0	0	0	0	0
3753:	0	0	0	0	0	0	0	0
3761:	0	0	0	0	0	0	0	1
3769:	0	0	0	0	0	0	0	0
3777:	0	0	0	0	1	0	1	1
3785:	0	0	0	2	0	0	0	1

3793:	0	0	0	0	0	0	1	0
3801:	1	0	0	0	0	0	0	0
3809:	0	0	1	0	0	1	0	1
3817:	0	0	0	0	1	0	0	0
3825:	0	0	0	0	0	1	0	0
3833:	0	0	0	0	0	0	0	0
3841:	0	0	0	0	0	0	0	0
3849:	0	0	0	0	0	1	0	0
3857:	0	0	0	0	0	1	0	0
3865:	0	0	0	0	0	0	0	0
3873:	0	1	0	1	0	0	0	0
3881:	0	0	0	1	0	1	0	0
3889:	0	0	1	0	0	0	0	0
3897:	0	0	0	1	1	0	1	1
3905:	0	0	0	0	0	0	0	0
3913:	0	0	0	0	0	0	0	0
3921:	0	0	0	0	0	0	0	0
3929:	0	0	0	0	0	0	0	1
3937:	0	0	0	0	0	0	0	0
3945:	0	0	0	0	0	0	0	0
3953:	0	0	0	0	0	0	0	0
3961:	0	0	1	0	0	0	1	0
3969:	0	0	0	0	0	0	0	0
3977:	0	1	0	0	0	0	0	0
3985:	0	0	0	0	0	0	0	0
3993:	0	0	0	0	0	0	0	0
4001:	0	0	0	1	0	0	0	0
4009:	0	1	0	0	0	0	0	0
4017:	0	0	0	0	0	0	0	0
4025:	0	0	0	0	0	0	0	0
4033:	0	1	0	1	0	0	0	0
4041:	0	0	0	0	0	0	0	0
4049:	0	1	1	0	0	0	0	0
4057:	0	0	0	0	0	0	0	0
4065:	0	0	0	0	0	2	0	0
4073:	0	0	0	0	0	0	0	1
4081:	0	0	0	0	0	1	0	0
4089:	0	0	0	0	0	0	0	0

Sample ID : 1111068-12

Page : 1
Acquisition date : 11-DEC-2011 15:43:26

AG
12/11/11

VAX/VMS Peak Search Report Generated 11-DEC-2011 16:45:43.33

Configuration : DKA100: [GAMMA.SCUSR.ARCHIVE] SMP 111106812_GE2_GAS1102_172296.
 Analyses by : PEAK V16.9 ENBACK V1.6 PEAKEFF V2.2
 Client ID : S12-34-31-111107
 Deposition Date :
 Sample Date : 7-NOV-2011 00:00:00. Acquisition date : 11-DEC-2011 15:43:26
 Sample ID : 1111068-12 Sample Quantity : 4.84770E+02 GRAM
 Sample type : SOIL Sample Geometry : 0
 Detector name : GE2 Detector Geometry: GAS-1102
 Elapsed live time: 0 01:00:00.00 Elapsed real time: 0 01:00:29.63 0.8%
 Start channel : 5 End channel : 4096
 Sensitivity : 2.40000 Gaussian : 15.00000
 Critical level : Yes

Post-NID Peak Search Report

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides
0	26.82*	352	9830	1.22	26.77	25	5	85.5		
0	32.12*	597	9781	1.77	32.06	30	5	50.6		
0	46.53*	7074	17701	1.43	46.48	44	6	6.4		PB-210
0	52.58*	2155	24267	1.65	52.53	50	7	24.3		
0	63.38*	7480	29643	1.83	63.34	61	6	7.6		TH-234
8	68.31	3246	10203	2.80	68.27	67	16	7.9	2.25E+03	
8	76.52*	58252	38682	2.83	76.48	67	16	1.4		
0	86.75	3422	22230	1.51	86.71	86	4	12.4		NP-237 SN-126 CD-109
0	92.95*	12061	26752	1.28	92.91	90	7	4.9		
0	112.51	934	19734	1.57	112.48	110	7	50.4		
0	143.98*	2139	16682	1.41	143.96	141	6	19.6		U-235 CE-141
0	154.31	1048	13886	1.79	154.30	152	5	34.4		
0	163.69*	487	12521	1.33	163.68	162	5	69.6		U-235
0	186.20*	17379	20387	1.56	186.20	182	9	3.3		RA-226
0	205.08*	614	11235	1.94	205.09	203	6	55.4		U-235
0	220.59	314	9436	2.94	220.61	219	6	98.7		
1	236.05	1773	7587	1.57	236.07	232	15	15.3	6.25E+00	
1	242.12*	16785	5631	1.39	242.15	232	15	2.0		RA-224
1	255.90	958	6118	1.72	255.93	253	10	25.3	1.76E+01	
1	258.88	1438	5971	1.72	258.91	253	10	17.3		
7	270.28	3184	10093	3.08	270.32	266	13	12.0	1.10E+01	
7	274.86	1089	6667	1.95	274.90	266	13	24.9		
0	285.48	248	6637	2.89	285.52	283		6104.5		
0	295.28*	35563	8642	1.74	295.32	291	8	1.4		PB-214
0	300.66	366	9691	4.72	300.70	300		10101.7		
0	315.05	200	4519	1.80	315.10	313		5102.1		
0	323.79	354	5208	1.48	323.84	322	6	65.4		RA-223
0	329.51	333	4325	1.37	329.56	328	5	60.2		
0	338.10*	250	4278	1.73	338.16	337	5	79.4		
0	351.94*	62721	6895	1.41	352.00	347	9	0.9		PB-214
0	388.17	1083	5199	3.61	388.25	385	8	23.9		
1	401.75	705	3502	1.67	401.83	399	10	26.1	5.92E+00	RN-219
1	405.09	486	4193	1.85	405.17	399	10	44.2		PB-211

AG
12/11/11

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides
0	427.30	281	4340	1.71	427.39	425	7	79.1		
0	439.05	179	3033	2.91	439.14	437	6	98.6		
0	444.89	213	2933	2.64	444.99	443	6	81.5		
0	454.62	342	3354	1.47	454.73	452	7	57.1		
0	461.88	283	3077	1.60	461.98	459	7	66.3		
0	480.34	470	2814	1.95	480.45	478	7	38.6		
0	486.99*	543	2715	1.49	487.11	484	7	33.0		
0	510.92*	652	3127	3.20	511.04	507	9	32.1		
0	534.46	486	3306	2.19	534.59	530	10	45.3		
0	580.40	476	2509	1.53	580.55	577	8	37.5		
0	609.25*	45880	3384	1.97	609.41	603	12	1.1		BI-214
0	650.06	113	1259	3.32	650.23	648		6101.6		
0	665.41	1293	1755	2.01	665.60	662	8	12.6		
0	682.59	127	1505	2.46	682.78	680		7102.8		
0	702.85	398	2104	1.87	703.04	699	9	42.7		
0	719.50	304	1513	1.59	719.70	716	7	44.0		
0	726.57	106	1247	2.74	726.77	725		6107.4		BI-212
0	741.99	254	1899	2.20	742.20	738	9	63.0		
0	752.28	128	1408	1.81	752.50	750	7	98.9		
0	768.11	4365	2029	2.14	768.33	764	10	4.9		
0	785.72*	959	1817	1.90	785.95	782	9	17.3		
0	806.23	988	1914	2.04	806.46	802	10	17.8		
0	826.24	97	1037	1.44	826.48	825		5101.2		
0	832.20	267	1435	2.09	832.44	829	7	48.8		PB-211
0	838.81	579	1402	1.96	839.05	836	7	23.0		
0	910.71*	173	1411	3.16	910.99	908	7	73.9		
1	930.51	124	1023	1.84	930.80	928	11	88.2	2.11E+00	
1	933.92	2314	990	1.97	934.20	928	11	6.0		
0	963.94	233	1167	1.71	964.24	961	7	50.3		
0	1000.92*	521	1462	1.82	1001.23	997	9	27.9		PA-234M
0	1032.12	96	1003	4.49	1032.44	1029		7111.4		
0	1051.81	275	890	1.82	1052.14	1049	7	38.1		
0	1069.64	104	1049	1.65	1069.97	1067		7105.0		
0	1104.08	91	814	1.90	1104.43	1102		6101.1		
0	1120.11*	10040	1234	2.20	1120.46	1116	10	2.4		BI-214
0	1133.68	289	1246	2.99	1134.03	1129	10	47.3		
0	1154.97	1027	1325	2.27	1155.33	1151	10	14.7		
0	1182.58	160	1040	4.73	1182.96	1179	9	74.4		
0	1207.98	177	943	1.94	1208.37	1205	8	62.0		
0	1238.01*	3590	1261	2.22	1238.40	1233	11	5.1		
0	1253.20	307	966	3.80	1253.61	1249	10	39.5		
0	1280.82	875	1009	2.39	1281.23	1277	10	15.2		
0	1328.78	98	683	1.55	1329.21	1325	8	95.0		
0	1337.23	135	829	6.96	1337.66	1333	10	81.6		
2	1377.36	2584	636	2.22	1377.81	1373	18	5.1	1.74E+00	
2	1384.97*	410	656	2.30	1385.42	1373	18	22.7		
1	1401.32*	722	701	2.33	1401.78	1397	17	14.1	1.63E+00	
1	1407.63	1326	681	2.29	1408.09	1397	17	8.6		
0	1424.47	203	986	4.76	1424.94	1419	12	63.5		
0	1460.56*	865	758	2.33	1461.04	1457	8	13.0		K-40
0	1508.85	1176	1078	2.44	1509.34	1504	11	12.3		

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides
2	1538.00	296	698	2.82	1538.51	1531	23	32.7	1.50E+00	
2	1543.22	289	644	2.60	1543.74	1531	23	33.1		
0	1582.86	352	704	2.54	1583.39	1579	10	30.2		
0	1594.49	93	556	1.88	1595.02	1590	8	90.1		
0	1598.98	136	468	2.12	1599.51	1598	7	55.1		
0	1661.20	590	480	2.53	1661.76	1656	13	17.5		
0	1683.98	102	259	2.71	1684.54	1680	8	57.8		
0	1693.12	169	338	2.64	1693.69	1689	11	45.4		
3	1729.16	1771	173	2.47	1729.74	1724	14	5.4	1.74E+00	
3	1733.57	37	194	3.05	1734.15	1724	14	161.9		
0	1764.10*	7888	375	2.49	1764.69	1758	14	2.5		BI-214
3	1837.90	148	237	2.92	1838.52	1834	20	39.6	6.60E-01	
3	1846.98	1056	188	2.68	1847.60	1834	20	7.7		
0	1872.53	92	239	2.34	1873.17	1869	9	64.0		
0	1891.76	149	391	9.22	1892.40	1884	18	64.5		
0	1936.11	93	205	2.11	1936.77	1933	8	57.2		
0	2052.11	67	139	6.27	2052.82	2045	14	79.2		
2	2108.76	33	73	3.09	2109.48	2104	19	98.2	1.77E+00	
2	2117.92	563	58	2.88	2118.65	2104	19	9.8		
0	2191.51	32	63	2.88	2192.26	2189	9	93.9		
0	2203.45*	2067	103	2.68	2204.21	2198	14	4.9		BI-214
0	2235.18	31	31	4.25	2235.95	2230	12	81.4		
0	2292.73	152	17	3.15	2293.52	2287	16	20.1		
0	2347.38	21	6	6.25	2348.19	2342	12	63.9		
0	2363.83	16	2	3.14	2364.65	2361	7	56.4		
0	2446.91	636	11	2.95	2447.76	2441	15	8.3		
0	2614.03*	53	5	3.94	2614.95	2610	10	33.4		
0	2920.80	13	2	2.25	2921.83	2916	10	71.8		
0	2977.45	12	0	3.87	2978.50	2974	9	57.7		

Total number of lines in spectrum 113
 Number of unidentified lines 66
 Number of lines tentatively identified by NID 47 41.59%

Nuclide Type : NATURAL

Nuclide	Hlife	Decay	Wtd Mean		Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
			Uncorrected pCi/GRAM	Decay Corr pCi/GRAM			
K-40	1.28E+09Y	1.00	2.741E+01	2.741E+01	0.466E+01	17.02	
PB-210	22.26Y	1.00	1.227E+02	1.231E+02	0.139E+02	11.29	
PB-211	3.28E+04Y	1.00	2.075E+01	2.075E+01	0.695E+01	33.49	
BI-212	1.41E+10Y	1.00	1.797E+00	1.797E+00	1.939E+00	107.88	
BI-214	1602.00Y	1.00	1.806E+02	1.806E+02	0.095E+02	5.26	
PB-214	1602.00Y	1.00	1.854E+02	1.854E+02	0.125E+02	6.72	
RN-219	3.28E+04Y	1.00	1.345E+01	1.345E+01	0.375E+01	27.85	
RA-223	3.28E+04Y	1.00	9.592E+00	9.592E+00	6.338E+00	66.08	
RA-224	1.41E+10Y	1.00	3.645E+02	3.645E+02	0.341E+02	9.36	
RA-226	1602.00Y	1.00	3.909E+02	3.909E+02	7.160E+02	183.18	
PA-234M	4.47E+09Y	1.00	1.464E+02	1.464E+02	0.433E+02	29.60	
TH-234	4.47E+09Y	1.00	1.212E+02	1.212E+02	0.145E+02	11.99	
U-235	7.04E+08Y	1.00	8.461E+00	8.461E+00	3.912E+00	46.23	
Total Activity :			1.593E+03	1.594E+03			

Nuclide Type : FISSION

Nuclide	Hlife	Decay	Wtd Mean		Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
			Uncorrected pCi/GRAM	Decay Corr pCi/GRAM			
CD-109	464.00D	1.05	5.441E+01	5.731E+01	1.157E+01	20.19	
SN-126	1.00E+05Y	1.00	5.470E+00	5.470E+00	1.051E+00	19.22	
CE-141	32.50D	2.10	2.912E+00	6.100E+00	1.997E+00	32.74	
NP-237	2.14E+06Y	1.00	1.606E+01	1.606E+01	0.305E+01	19.02	
Total Activity :			7.886E+01	8.494E+01			

Grand Total Activity : 1.672E+03 1.678E+03

Flags: "K" = Keyline not found
 "E" = Manually edited

"M" = Manually accepted
 "A" = Nuclide specific abn. limit

Nuclide Type: NATURAL

Nuclide	Energy	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error	Status
K-40	1460.81	10.67*	4.582E-01	2.741E+01	2.741E+01	17.02	OK
Final Mean for 1 Valid Peaks = 2.741E+01+/- 4.665E+00 (17.02%)							
PB-210	46.50	4.05*	2.204E+00	1.227E+02	1.231E+02	11.29	OK
Final Mean for 1 Valid Peaks = 1.231E+02+/- 1.390E+01 (11.29%)							
PB-211	404.84	2.90*	1.241E+00	2.090E+01	2.090E+01	45.27	OK
	831.96	2.90	6.924E-01	2.056E+01	2.056E+01	49.77	OK
Final Mean for 2 Valid Peaks = 2.075E+01+/- 6.948E+00 (33.49%)							
BI-212	727.17	11.80*	7.716E-01	1.797E+00	1.797E+00	107.88	OK
	1620.62	2.75	4.293E-01	-----	Line Not Found	-----	Absent
Final Mean for 1 Valid Peaks = 1.797E+00+/- 1.939E+00 (107.88%)							
BI-214	609.31	46.30*	8.915E-01	1.721E+02	1.721E+02	9.88	OK
	1120.29	15.10	5.508E-01	1.869E+02	1.870E+02	10.38	OK
	1764.49	15.80	4.084E-01	1.893E+02	1.893E+02	10.35	OK
	2204.22	4.98	3.644E-01	1.764E+02	1.764E+02	11.64	OK
Final Mean for 4 Valid Peaks = 1.806E+02+/- 9.498E+00 (5.26%)							
PB-214	295.21	19.19	1.574E+00	1.824E+02	1.824E+02	9.35	OK
	351.92	37.19*	1.383E+00	1.889E+02	1.889E+02	9.67	OK
Final Mean for 2 Valid Peaks = 1.854E+02+/- 1.247E+01 (6.72%)							
RN-219	401.80	6.50*	1.248E+00	1.345E+01	1.345E+01	27.85	OK
Final Mean for 1 Valid Peaks = 1.345E+01+/- 3.747E+00 (27.85%)							
RA-223	323.87	3.88*	1.472E+00	9.592E+00	9.592E+00	66.08	OK
Final Mean for 1 Valid Peaks = 9.592E+00+/- 6.338E+00 (66.08%)							
RA-224	240.98	3.95*	1.806E+00	3.645E+02	3.645E+02	9.36	OK
Final Mean for 1 Valid Peaks = 3.645E+02+/- 3.413E+01 (9.36%)							
RA-226	186.21	3.28*	2.099E+00	3.909E+02	3.909E+02	183.18	OK
Final Mean for 1 Valid Peaks = 3.909E+02+/- 7.160E+02 (183.18%)							
PA-234M	1001.03	0.92*	5.993E-01	1.464E+02	1.464E+02	29.60	OK
Final Mean for 1 Valid Peaks = 1.464E+02+/- 4.334E+01 (29.60%)							

Nuclide Type: NATURAL

Nuclide	Energy	%Abn	%Eff	Uncorrected Decay Corr		2-Sigma %Error	Status
				pCi/GRAM	pCi/GRAM		
TH-234	63.29	3.80*	2.516E+00	1.212E+02	1.212E+02	11.99	OK
Final Mean for 1 Valid Peaks = 1.212E+02+/- 1.452E+01 (11.99%)							
U-235	143.76	10.50*	2.361E+00	1.336E+01	1.336E+01	26.45	<<WM Interf
	163.35	4.70	2.238E+00	7.175E+00	7.175E+00	72.23	OK
	205.31	4.70	1.990E+00	1.016E+01	1.016E+01	58.67	OK
Final Mean for 2 Valid Peaks = 8.461E+00+/- 3.912E+00 (46.23%)							

Nuclide Type: FISSION

Nuclide	Energy	%Abn	%Eff	Uncorrected Decay Corr		2-Sigma %Error	Status
				pCi/GRAM	pCi/GRAM		
CD-109	88.03	3.72*	2.618E+00	5.441E+01	5.731E+01	20.19	OK
Final Mean for 1 Valid Peaks = 5.731E+01+/- 1.157E+01 (20.19%)							
SN-126	87.57	37.00*	2.618E+00	5.470E+00	5.470E+00	19.22	OK
Final Mean for 1 Valid Peaks = 5.470E+00+/- 1.051E+00 (19.22%)							
CE-141	145.44	48.40*	2.351E+00	2.912E+00	6.100E+00	32.74	OK
Final Mean for 1 Valid Peaks = 6.100E+00+/- 1.997E+00 (32.74%)							
NP-237	86.50	12.60*	2.619E+00	1.606E+01	1.606E+01	19.02	OK
Final Mean for 1 Valid Peaks = 1.606E+01+/- 3.054E+00 (19.02%)							

Flag: "*" = Keyline

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.741E+01	4.665E+00	3.923E+00	4.023E-01	6.987
CD-109	5.731E+01	1.157E+01	1.178E+01	1.817E+00	4.867
SN-126	5.470E+00	1.051E+00	1.124E+00	1.588E-01	4.868
CE-141	6.100E+00	1.997E+00	1.475E+00	3.823E-01	4.136
PB-210	1.231E+02	1.390E+01	8.542E+00	7.160E-01	14.409
PB-211	2.075E+01	6.948E+00	1.210E+01	1.091E+00	1.714
BI-212	1.797E+00	1.939E+00	2.832E+00	2.500E-01	0.635
BI-214	1.806E+02	9.498E+00	7.129E-01	6.398E-02	253.405
PB-214	1.854E+02	1.247E+01	8.661E-01	7.585E-02	214.070
RN-219	1.345E+01	3.747E+00	5.364E+00	4.829E-01	2.508
RA-223	9.592E+00	6.338E+00	8.310E+00	7.123E-01	1.154
RA-224	3.645E+02	3.413E+01	8.306E+00	6.834E-01	43.883
RA-226	3.909E+02	7.160E+02	1.053E+01	1.928E+01	37.120
PA-234M	1.464E+02	4.334E+01	4.237E+01	3.890E+00	3.456
TH-234	1.212E+02	1.452E+01	1.036E+01	8.630E-01	11.693
U-235	8.461E+00	3.912E+00	3.199E+00	5.538E-01	2.645
NP-237	1.606E+01	3.054E+00	2.972E+00	4.120E-01	5.403

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	6.758E-01		3.167E+00	4.911E+00	4.541E-01	0.138
NA-22	6.411E-02		2.704E-01	3.972E-01	3.915E-02	0.161
AL-26	1.206E-01		1.413E-01	2.569E-01	2.322E-02	0.470
TI-44	2.083E+00	+	2.688E-01	4.377E-01	4.104E-02	4.760
SC-46	-6.054E-03		3.261E-01	5.429E-01	4.867E-02	-0.011
V-48	-1.870E-01		1.066E+00	1.760E+00	1.611E-01	-0.106
CR-51	-4.067E+00		6.200E+00	7.721E+00	6.954E-01	-0.527
MN-54	5.995E-01		3.449E-01	4.309E-01	3.868E-02	1.391
CO-56	-2.001E-02		3.501E-01	5.224E-01	4.690E-02	-0.038
CO-57	7.700E-02		2.414E-01	3.947E-01	3.348E-02	0.195
CO-58	-1.833E-01		3.354E-01	4.949E-01	4.446E-02	-0.370
FE-59	-1.425E-01		8.141E-01	1.190E+00	1.181E-01	-0.120
CO-60	2.123E-01		2.729E-01	4.097E-01	3.799E-02	0.518
ZN-65	4.265E+00		7.993E-01	1.150E+00	1.068E-01	3.708
SE-75	3.847E-02		5.040E-01	6.452E-01	5.346E-02	0.060
RB-82	3.663E-02		5.675E+00	6.764E+00	6.036E-01	0.005
RB-83	1.438E-01		5.426E-01	8.909E-01	1.425E-01	0.161
KR-85	8.813E+01		4.846E+01	7.593E+01	7.031E+00	1.161
SR-85	5.548E-01		3.050E-01	4.780E-01	4.426E-02	1.161
Y-88	6.411E-01		2.471E-01	4.197E-01	3.747E-02	1.528
NB-93M	3.311E+01		1.249E+01	1.300E+01	3.915E+00	2.546
NB-94	1.877E-01		2.375E-01	4.010E-01	3.599E-02	0.468
NB-95	1.305E+01		1.430E+00	1.284E+00	1.145E-01	10.162
ZR-95	6.358E-02		5.854E-01	8.851E-01	8.621E-02	0.072
RU-103	1.292E-02		3.728E-01	6.395E-01	9.313E-02	0.020
RU-106	-2.310E+00		1.976E+00	3.242E+00	4.390E-01	-0.712

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AG-108M	2.235E-01		3.106E-01	3.820E-01	3.368E-02	0.585
AG-110M	6.146E-02		3.037E-01	3.697E-01	3.199E-02	0.166
SN-113	1.076E-01		4.141E-01	6.478E-01	5.964E-02	0.166
TE123M	2.004E-01		3.806E-01	5.015E-01	4.035E-02	0.400
SB-124	2.154E-01		3.345E-01	5.166E-01	4.655E-02	0.417
I-125	1.639E+00		5.190E+00	8.137E+00	8.346E-01	0.201
SB-125	1.277E+00	+	1.018E+00	1.260E+00	1.169E-01	1.013
SB-126	7.810E+00	+	3.517E+00	4.820E+00	4.247E-01	1.620
I-129	4.748E-01		5.136E-01	7.190E-01	8.814E-02	0.660
I-131	2.631E+00		4.407E+00	7.678E+00	6.777E-01	0.343
BA-133	6.517E-01		3.731E-01	5.370E-01	7.146E-02	1.214
CS-134	9.226E-01		2.654E-01	4.073E-01	3.674E-02	2.265
CS-135	1.021E+01		1.640E+00	2.294E+00	1.886E-01	4.449
CS-136	1.376E+00		2.030E+00	3.051E+00	2.896E-01	0.451
CS-137	3.339E-01		2.515E-01	3.916E-01	3.382E-02	0.853
LA-138	5.230E-02		3.905E-01	6.056E-01	6.105E-02	0.086
CE-139	4.894E-01		3.398E-01	5.086E-01	4.049E-02	0.962
BA-140	2.823E+00		5.572E+00	8.521E+00	2.838E+00	0.331
LA-140	6.052E+00		2.415E+00	3.060E+00	2.985E-01	1.978
CE-144	-1.875E+00		2.012E+00	3.242E+00	2.702E-01	-0.578
PM-144	4.991E-02		2.331E-01	3.547E-01	3.106E-02	0.141
PM-145	-2.017E+00		1.681E+00	1.598E+00	1.043E+00	-1.263
PM-146	1.186E+00	+	6.876E-01	8.710E-01	8.014E-02	1.361
ND-147	2.036E+01		1.432E+01	2.240E+01	2.070E+00	0.909
EU-152	2.944E+01	+	4.525E+00	4.656E+00	5.647E-01	6.323
GD-153	-2.290E+00		9.486E-01	1.461E+00	1.703E-01	-1.567
EU-154	1.694E-01		7.476E-01	1.098E+00	1.082E-01	0.154
EU-155	6.636E+00	+	1.262E+00	1.468E+00	2.035E-01	4.520
EU-156	-6.390E+00		1.110E+01	1.624E+01	3.732E+00	-0.393
HO-166M	-6.040E-03		5.139E-01	6.162E-01	5.414E-02	-0.010
HF-172	-1.456E+00		1.769E+00	2.861E+00	2.410E-01	-0.509
LU-172	6.042E+00		1.362E+01	2.269E+01	2.104E+00	0.266
LU-173	1.111E+01		1.500E+00	1.915E+00	1.573E-01	5.801
HF-175	-2.299E-01		4.512E-01	5.614E-01	4.887E-02	-0.410
LU-176	1.561E-02		2.312E-01	3.356E-01	2.832E-02	0.047
TA-182	9.986E+01	+	1.037E+01	4.818E+00	4.472E-01	20.725
IR-192	7.267E-01		6.001E-01	9.408E-01	8.686E-02	0.772
HG-203	3.354E-01		5.495E-01	7.066E-01	5.974E-02	0.475
BI-207	-9.945E-02		1.966E-01	3.321E-01	3.038E-02	-0.299
TL-208	8.462E-01		7.312E-01	1.137E+00	1.035E-01	0.744
BI-210M	4.913E-01		5.487E-01	7.102E-01	5.844E-02	0.692
PB-212	3.706E+00		5.951E-01	8.312E-01	6.837E-02	4.459
RA-225	-1.919E+00		3.539E+00	5.493E+00	5.099E-01	-0.349
TH-227	1.305E+01	+	2.327E+00	3.234E+00	2.659E-01	4.034
AC-228	1.499E+00	+	1.118E+00	1.535E+00	1.381E-01	0.976
TH-230	5.313E+02	+	6.837E+01	1.115E+02	1.040E+01	4.764
PA-231	3.393E+01		1.015E+01	1.469E+01	1.234E+00	2.310
TH-231	2.957E+00	+	2.569E+00	3.376E+00	4.973E-01	0.876

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PA-233	7.641E-01		1.591E+00	2.022E+00	4.530E-01	0.378
PA-234	5.671E-01		9.634E-01	1.573E+00	1.315E-01	0.361
AM-241	2.130E+00		7.922E-01	1.077E+00	8.056E-02	1.978
AM-243	1.796E+01		2.151E+00	8.691E-01	9.525E-02	20.663
CM-243	3.535E-01		1.610E+00	2.353E+00	1.930E-01	0.150

Total number of lines in spectrum 113
 Number of unidentified lines 66
 Number of lines tentatively identified by NID 47 41.59%

Nuclide Type : NATURAL

Nuclide	Hlife	Decay	Wtd Mean		Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
			Uncorrected pCi/GRAM	Decay Corr pCi/GRAM			
K-40	1.28E+09Y	1.00	2.741E+01	2.741E+01	0.466E+01	17.02	
PB-210	22.26Y	1.00	1.227E+02	1.231E+02	0.139E+02	11.29	
PB-211	3.28E+04Y	1.00	2.075E+01	2.075E+01	0.695E+01	33.49	
BI-212	1.41E+10Y	1.00	1.797E+00	1.797E+00	1.939E+00	107.88	
BI-214	1602.00Y	1.00	1.806E+02	1.806E+02	0.095E+02	5.26	
PB-214	1602.00Y	1.00	1.854E+02	1.854E+02	0.125E+02	6.72	
RN-219	3.28E+04Y	1.00	1.345E+01	1.345E+01	0.375E+01	27.85	
RA-223	3.28E+04Y	1.00	9.592E+00	9.592E+00	6.338E+00	66.08	
RA-224	1.41E+10Y	1.00	3.645E+02	3.645E+02	0.341E+02	9.36	
RA-226	1602.00Y	1.00	3.909E+02	3.909E+02	7.160E+02	183.18	
PA-234M	4.47E+09Y	1.00	1.464E+02	1.464E+02	0.433E+02	29.60	
TH-234	4.47E+09Y	1.00	1.212E+02	1.212E+02	0.145E+02	11.99	
U-235	7.04E+08Y	1.00	8.461E+00	8.461E+00	3.912E+00	46.23	
Total Activity :			1.593E+03	1.594E+03			

Nuclide Type : FISSION

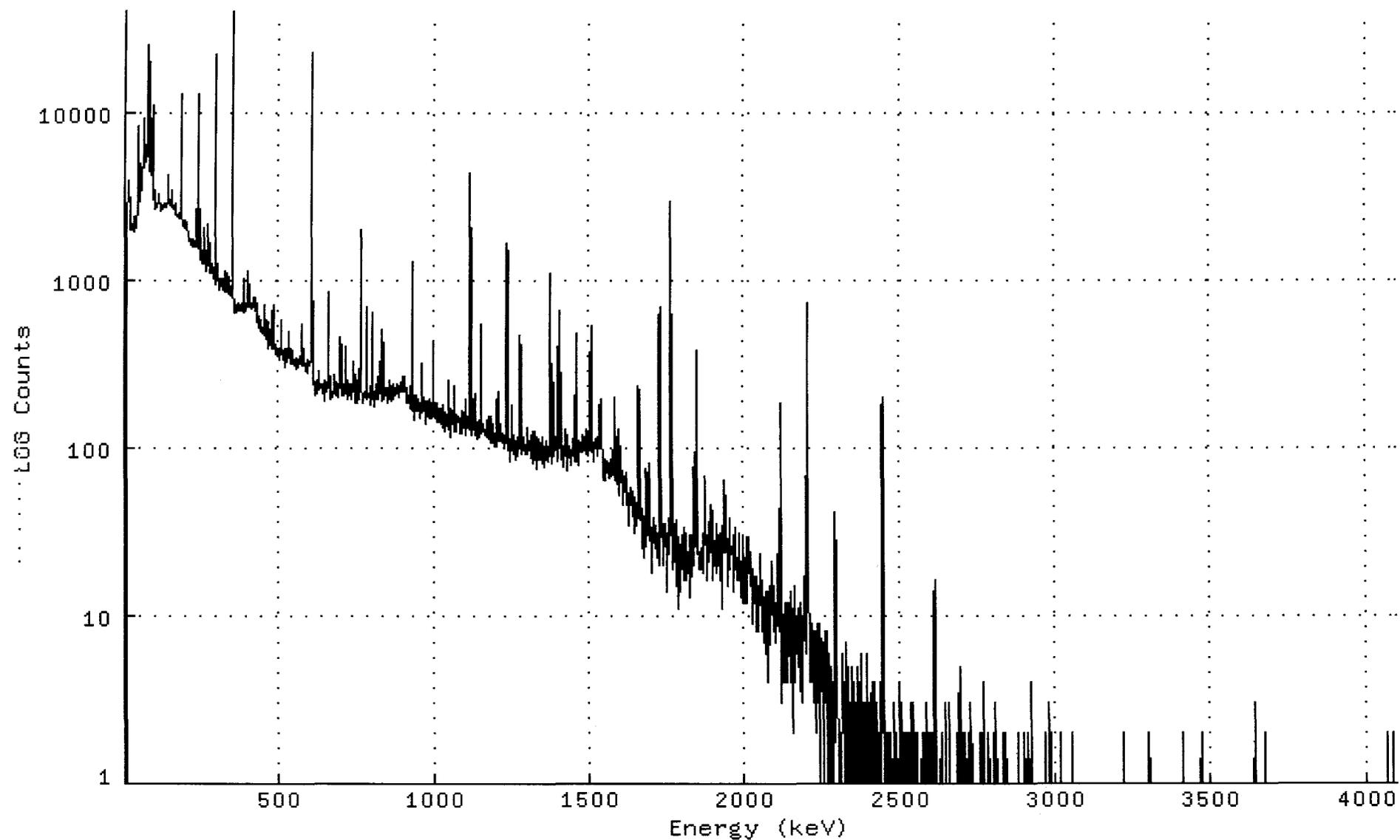
Nuclide	Hlife	Decay	Wtd Mean		Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
			Uncorrected pCi/GRAM	Decay Corr pCi/GRAM			
CD-109	464.00D	1.05	5.441E+01	5.731E+01	1.157E+01	20.19	
SN-126	1.00E+05Y	1.00	5.470E+00	5.470E+00	1.051E+00	19.22	
CE-141	32.50D	2.10	2.912E+00	6.100E+00	1.997E+00	32.74	
NP-237	2.14E+06Y	1.00	1.606E+01	1.606E+01	0.305E+01	19.02	
Total Activity :			7.886E+01	8.494E+01			

Grand Total Activity : 1.672E+03 1.678E+03

Flags: "K" = Keyline not found
 "E" = Manually edited

"M" = Manually accepted
 "A" = Nuclide specific abn. limit

Spectrum : DKA100:[GAMMA.SCUSR.ARCHIVE]SMP_111106812_GE2_GAS1102_172296.CNF;1
Title :
Sample Title: S12-34-31-111107
Start Time: 11-DEC-2011 15:43 Sample Time: 7-NOV-2011 00:00: Energy Offset: 6.87229E-02
Real Time : 0 01:00:29.63 Sample ID : 1111068-12 Energy Slope : 9.99625E-01
Live Time : 0 01:00:00.00 Sample Type: SOIL Energy Quad : 0.00000E+00



Channel Contents for DKA100: [GAMMA.SCUSR.ARCHIVE] SMP_111106812_GE2_GAS1102_1722

Channel

1:	0	0	0	0	0	0	2	91
9:	1940	2442	3286	3143	3265	3031	3834	3480
17:	2687	2203	2294	2213	1994	1948	1963	1987
25:	2087	2056	2037	2126	1892	1948	2041	2347
33:	2194	1955	2006	2215	2227	2002	2128	2322
41:	2438	2483	2515	2733	2910	5304	8053	2965
49:	2866	3754	3412	3280	4742	4436	3384	3425
57:	3744	4054	4494	4621	4846	4975	9022	8420
65:	4991	4924	5349	6278	5134	5064	5273	5353
73:	5668	7616	18294	9170	24438	15684	5496	5475
81:	5745	4760	4399	7866	4734	4136	8970	8279
89:	4267	6135	4184	6095	10631	4509	4276	3061
97:	2822	3327	3300	2709	2576	2611	2775	2638
105:	2675	2740	2657	2640	2891	2924	3036	3039
113:	3233	2882	2756	2798	2712	2736	2543	2639
121:	2750	2703	2652	2664	2631	2748	2694	2701
129:	2799	2833	2682	2692	2791	2719	2725	2673
137:	2733	2823	2791	2821	2795	2848	3117	4144
145:	3224	2704	2816	2747	2808	2912	2916	2842
153:	2874	3372	3173	2673	2746	2696	2640	2686
161:	2615	2587	2664	2838	2493	2434	2449	2465
169:	2408	2417	2362	2384	2351	2397	2410	2259
177:	2342	2269	2302	2362	2383	2457	2454	2429
185:	3916	12608	7308	2319	2180	2194	2085	2158
193:	2169	2107	2175	2208	2193	2055	2134	2008
201:	2092	2009	1988	1998	2197	2112	1779	1785
209:	1789	1718	1877	1661	1659	1702	1696	1650
217:	1703	1598	1641	1724	1642	1661	1536	1546
225:	1535	1620	1674	1586	1575	1538	1581	1567
233:	1557	1581	1741	2594	1894	1598	1764	1528
241:	3017	12453	5194	1332	1297	1330	1293	1331
249:	1371	1307	1314	1247	1251	1297	1283	1718
257:	1547	1429	2032	1296	1223	1170	1149	1188
265:	1152	1112	1184	1179	1838	2131	1905	1737
273:	1211	1478	1617	1184	1144	1087	1123	1169
281:	1149	1184	1078	1229	1147	1234	1118	1079
289:	1098	1092	1010	1023	1096	2996	21538	14194
297:	1435	937	964	1227	1102	1024	1137	1032
305:	1000	907	897	879	852	904	860	931
313:	899	987	997	904	932	861	861	883
321:	871	861	931	1111	960	845	854	885
329:	954	1093	890	836	888	920	929	826
337:	833	1003	1018	822	859	886	915	814
345:	791	829	865	887	1043	1208	11464	39994
353:	12685	887	640	701	701	747	650	638
361:	649	644	637	682	699	690	677	643
369:	697	655	718	671	653	690	663	668
377:	680	655	685	700	711	652	693	689
385:	633	805	890	849	997	803	666	639
393:	644	685	705	684	746	715	688	708
401:	802	1104	754	782	924	895	758	672
409:	723	655	694	711	723	710	716	697
417:	711	686	770	717	749	677	722	680
425:	654	685	765	686	649	590	592	582

433:	547	591	546	513	543	547	548	566
441:	526	482	498	550	571	545	486	496
449:	480	501	471	482	477	559	700	540
457:	470	468	494	448	505	574	475	479
465:	385	435	449	447	469	548	446	443
473:	413	496	478	405	422	385	448	599
481:	644	417	408	383	419	463	703	515
489:	393	383	381	382	354	409	380	388
497:	348	376	375	380	360	386	347	333
505:	353	358	352	355	404	570	548	545
513:	404	344	350	333	361	336	334	386
521:	364	302	350	330	345	329	325	330
529:	357	332	361	358	429	487	404	367
537:	383	360	311	328	337	336	383	372
545:	333	348	334	374	322	314	321	305
553:	312	324	325	328	340	294	310	338
561:	306	327	320	323	302	333	302	330
569:	310	326	311	322	351	352	349	318
577:	303	323	389	541	395	329	381	324
585:	308	316	323	314	312	302	283	284
593:	297	276	293	333	293	296	308	321
601:	322	303	304	319	322	326	384	3515
609:	22191	18995	2196	258	245	247	269	238
617:	298	262	228	230	240	205	233	226
625:	242	222	226	249	210	236	245	231
633:	285	261	220	248	226	230	237	233
641:	228	231	228	226	228	208	233	225
649:	246	243	247	223	188	206	220	217
657:	213	232	244	226	238	237	223	268
665:	762	829	336	202	191	220	228	226
673:	219	206	199	214	200	216	213	213
681:	219	252	272	252	209	215	218	220
689:	241	200	217	214	198	230	221	215
697:	214	259	223	260	230	291	456	368
705:	257	205	212	244	240	234	239	211
713:	212	208	216	201	220	228	301	397
721:	261	209	236	193	221	234	236	251
729:	204	207	210	211	201	237	220	194
737:	204	201	205	225	248	296	320	232
745:	211	215	221	181	207	211	215	233
753:	270	231	183	193	198	208	207	213
761:	198	190	212	191	238	353	654	1968
769:	1907	463	213	203	204	204	210	190
777:	185	206	208	195	196	195	196	233
785:	405	689	458	194	202	206	208	202
793:	196	208	207	209	196	177	210	228
801:	215	198	190	221	328	637	511	232
809:	200	213	172	187	179	177	208	212
817:	203	194	197	216	259	251	194	197
825:	199	264	237	225	209	218	245	321
833:	287	216	206	186	208	325	494	361
841:	217	190	217	215	197	217	222	226
849:	219	202	221	225	201	202	212	206
857:	184	196	215	194	226	215	246	200
865:	219	219	186	228	217	200	234	220
873:	232	227	194	223	209	200	201	203
881:	206	217	210	238	207	229	219	232
889:	223	230	220	200	199	203	227	240
897:	211	218	243	232	225	239	214	259
905:	242	220	214	211	221	252	259	241

913:	216	191	196	197	193	182	195	194
921:	196	201	204	186	169	180	179	167
929:	194	186	231	205	538	1252	861	278
937:	179	145	171	201	196	170	186	203
945:	188	200	184	205	166	172	175	170
953:	174	190	166	185	150	177	175	174
961:	156	166	188	314	255	162	159	177
969:	172	197	172	167	164	185	155	178
977:	145	186	136	144	187	151	175	171
985:	184	155	148	188	180	192	169	175
993:	164	171	181	150	165	175	151	245
1001:	414	299	180	176	183	150	170	152
1009:	163	152	165	158	142	177	150	182
1017:	175	161	158	143	171	154	150	150
1025:	167	146	143	171	138	170	164	176
1033:	154	165	132	138	123	151	160	145
1041:	125	140	135	143	157	153	142	142
1049:	129	149	180	252	186	154	115	127
1057:	117	145	129	149	146	138	142	146
1065:	159	163	154	139	190	228	169	124
1073:	149	138	125	141	156	147	141	149
1081:	146	141	153	149	148	141	123	139
1089:	122	138	127	131	122	156	139	163
1097:	141	134	144	130	150	133	137	190
1105:	190	137	118	145	131	145	136	148
1113:	141	151	132	127	135	226	1220	4194
1121:	3870	1072	179	140	118	119	139	136
1129:	128	142	147	133	184	207	192	149
1137:	135	118	119	137	134	123	142	137
1145:	111	130	114	132	131	139	131	137
1153:	158	282	543	505	207	120	131	138
1161:	123	128	133	128	129	129	119	117
1169:	129	129	116	142	144	134	120	137
1177:	135	114	130	112	151	148	141	151
1185:	146	107	114	107	113	122	116	137
1193:	128	105	115	120	120	100	112	113
1201:	114	106	100	137	105	117	172	215
1209:	158	112	119	122	109	114	136	118
1217:	115	108	126	116	114	105	114	105
1225:	116	110	113	112	107	103	100	136
1233:	109	109	107	165	651	1629	1353	379
1241:	123	114	118	97	101	100	111	82
1249:	94	112	96	144	140	180	163	129
1257:	108	107	101	111	96	96	85	104
1265:	102	99	105	108	90	105	114	88
1273:	101	109	118	98	118	98	114	282
1281:	458	364	154	98	99	99	92	114
1289:	97	116	101	103	104	91	96	96
1297:	96	104	100	92	95	104	131	130
1305:	103	95	109	96	104	97	104	87
1313:	107	113	97	97	119	106	124	95
1321:	110	107	81	90	92	85	94	124
1329:	103	94	101	88	74	95	102	115
1337:	101	88	102	91	111	85	84	104
1345:	89	107	99	95	90	90	92	89
1353:	80	115	88	76	83	92	90	84
1361:	109	91	85	100	96	104	99	84
1369:	88	89	101	96	82	94	98	233
1377:	903	1096	627	156	91	81	89	150
1385:	256	231	140	101	94	88	101	97

1393:	95	114	99	97	106	83	112	141
1401:	317	391	234	99	113	137	383	653
1409:	441	176	108	84	91	100	91	102
1417:	91	80	77	97	90	101	91	89
1425:	127	118	113	97	117	72	99	104
1433:	73	90	92	87	95	99	101	92
1441:	83	79	87	88	85	85	111	89
1449:	97	99	90	96	89	95	110	107
1457:	83	96	132	314	471	310	144	83
1465:	106	99	78	110	93	105	98	103
1473:	94	98	101	107	104	106	99	95
1481:	117	100	93	96	95	116	98	99
1489:	98	101	100	92	104	126	100	108
1497:	88	100	111	123	88	119	100	95
1505:	117	104	118	261	525	487	241	118
1513:	95	93	104	100	85	83	106	99
1521:	110	103	101	109	105	113	101	114
1529:	97	88	101	99	100	98	111	108
1537:	123	174	184	100	100	113	160	192
1545:	119	80	82	68	72	64	76	76
1553:	63	84	68	79	76	83	82	72
1561:	77	72	72	65	76	75	73	79
1569:	77	85	84	67	70	76	66	79
1577:	68	71	71	74	75	126	195	186
1585:	112	80	74	63	77	79	61	71
1593:	73	106	126	81	52	73	119	126
1601:	82	68	68	68	71	62	73	72
1609:	60	66	53	46	63	65	59	57
1617:	66	57	71	65	46	49	63	47
1625:	53	41	52	49	34	51	42	51
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1665:	41	41	37	40	25	36	32	43
1673:	36	31	31	37	38	31	39	22
1681:	29	35	56	75	69	45	30	38
1689:	38	39	45	62	80	66	37	38
1697:	43	41	18	33	25	28	28	29
1705:	38	29	34	27	32	36	29	25
1713:	34	34	28	30	26	31	26	27
1721:	26	31	24	20	32	36	52	182
1729:	555	687	355	92	35	44	29	31
1737:	26	30	20	35	34	30	35	35
1745:	26	35	31	28	28	29	31	14
1753:	30	28	38	23	29	34	26	33
1761:	45	151	821	2486	2905	1355	278	60
1769:	29	21	26	19	35	26	21	24
1777:	23	22	37	19	19	15	21	29
1785:	24	11	29	29	18	17	21	14
1793:	23	22	22	23	30	19	23	28
1801:	23	22	16	24	31	26	29	24
1809:	33	29	16	25	22	20	17	18
1817:	24	19	18	19	21	28	24	29
1825:	25	13	30	22	17	25	30	30
1833:	26	28	20	32	50	66	76	41
1841:	33	26	27	28	52	168	336	378
1849:	201	52	30	25	21	22	24	19
1857:	23	19	21	23	19	23	25	23
1865:	18	25	28	31	21	24	36	46

1873:	66	55	31	28	24	30	27	16
1881:	25	23	23	21	21	26	22	30
1889:	44	46	46	29	25	24	29	42
1897:	40	31	31	16	17	26	20	23
1905:	28	23	28	23	19	35	26	23
1913:	18	24	25	20	25	30	24	31
1921:	28	18	27	30	23	11	31	18
1929:	24	34	25	24	24	27	35	46
1937:	63	43	36	24	30	25	24	39
1945:	21	17	24	24	15	28	24	34
1953:	38	19	19	25	25	24	23	26
1961:	23	23	25	30	26	14	27	23
1969:	25	23	21	27	33	19	20	17
1977:	19	22	16	21	16	17	16	17
1985:	19	31	19	21	21	19	14	19
1993:	13	30	22	16	23	17	12	12
2001:	16	15	12	22	15	19	13	12
2009:	16	29	14	23	23	21	18	20
2017:	29	20	22	17	16	17	15	18
2025:	19	9	18	11	17	15	17	17
2033:	16	12	16	14	17	8	8	10
2041:	9	14	10	14	8	15	13	11
2049:	12	17	19	23	19	16	14	16
2057:	15	8	10	16	9	11	7	9
2065:	10	13	6	13	9	14	10	10
2073:	10	6	12	14	9	10	4	11
2081:	12	10	12	10	13	18	11	12
2089:	21	12	11	9	12	15	13	9
2097:	8	10	8	7	8	12	8	9
2105:	9	10	9	16	18	30	12	8
2113:	10	10	13	25	76	170	185	100
2121:	39	3	7	6	4	10	10	9
2129:	12	4	9	10	6	6	10	12
2137:	6	7	6	4	8	8	12	8
2145:	6	7	8	14	4	11	13	9
2153:	7	4	7	5	2	5	11	7
2161:	15	4	5	8	8	7	7	7
2169:	10	6	10	9	6	11	9	9
2177:	6	4	12	4	10	12	4	3
2185:	8	8	10	4	6	8	13	17
2193:	13	12	9	9	8	9	6	12
2201:	31	149	401	719	533	221	59	15
2209:	7	8	4	9	8	6	7	4
2217:	9	7	5	4	8	3	4	4
2225:	7	3	8	7	2	6	5	5
2233:	6	5	3	7	9	6	4	5
2241:	1	2	4	9	6	5	4	5
2249:	6	5	6	2	7	1	7	3
2257:	2	8	3	4	5	7	4	6
2265:	0	8	8	4	2	6	6	3
2273:	2	1	2	1	5	5	5	5
2281:	5	2	3	4	3	0	1	3
2289:	3	7	6	25	41	37	21	7
2297:	3	4	3	6	1	1	2	0
2305:	2	2	1	2	2	2	2	1
2313:	4	6	4	5	2	3	4	1
2321:	2	4	0	3	5	2	2	0
2329:	0	7	1	3	5	0	3	1
2337:	3	3	2	2	0	1	2	1
2345:	3	3	0	5	3	4	3	2

2353:	0	1	1	3	2	1	1	1
2361:	0	2	2	5	4	5	0	0
2369:	2	3	2	4	4	1	1	2
2377:	6	1	1	1	2	3	2	2
2385:	0	2	0	3	1	1	3	2
2393:	4	2	6	1	0	2	2	1
2401:	0	3	1	1	1	2	2	1
2409:	2	3	4	2	2	2	1	1
2417:	0	0	3	0	4	1	0	3
2425:	1	1	0	1	3	0	1	2
2433:	1	1	1	2	1	2	4	1
2441:	1	4	2	4	23	77	159	198
2449:	116	49	9	1	2	2	0	1
2457:	1	1	2	2	0	1	0	0
2465:	1	1	1	1	1	1	0	2
2473:	1	1	0	0	0	0	0	1
2481:	0	3	2	0	1	2	0	2
2489:	1	1	1	1	0	1	0	0
2497:	2	2	0	1	4	0	2	2
2505:	1	3	1	2	2	1	0	0
2513:	2	0	1	1	2	1	1	0
2521:	2	1	2	0	0	0	0	0
2529:	2	0	0	1	1	0	1	0
2537:	3	0	1	1	0	1	3	2
2545:	0	2	0	0	2	2	0	2
2553:	0	2	2	0	1	1	0	1
2561:	1	1	1	1	1	1	1	1
2569:	0	1	2	1	0	1	1	0
2577:	1	1	0	0	0	2	0	0
2585:	3	0	0	0	0	1	0	0
2593:	1	2	0	0	2	0	2	0
2601:	0	1	0	1	2	1	0	2
2609:	2	0	0	3	12	16	15	12
2617:	5	3	0	0	0	1	0	1
2625:	1	0	1	1	0	1	0	2
2633:	0	0	0	0	1	0	0	0
2641:	0	0	0	1	0	3	0	0
2649:	0	1	1	0	1	1	1	1
2657:	1	0	1	0	3	1	0	0
2665:	0	0	0	0	0	0	0	0
2673:	0	0	0	0	0	0	0	0
2681:	0	2	1	0	0	1	0	0
2689:	1	1	0	0	3	4	2	5
2697:	1	1	1	2	1	0	0	1
2705:	0	1	1	0	0	2	2	1
2713:	1	0	1	0	0	2	0	2
2721:	0	1	1	1	0	1	0	0
2729:	3	0	1	0	0	0	0	1
2737:	0	1	0	0	0	0	1	0
2745:	1	1	1	0	1	0	0	1
2753:	1	0	0	1	0	2	0	0
2761:	0	2	0	1	1	0	0	3
2769:	4	0	2	0	1	0	1	0
2777:	0	0	0	0	0	0	0	1
2785:	2	1	0	0	0	0	1	0
2793:	0	0	1	0	1	0	2	0
2801:	0	0	2	1	0	3	0	0
2809:	2	0	0	0	0	1	0	0
2817:	1	1	1	0	0	0	0	1
2825:	0	0	0	1	0	2	1	0

2833:	1	0	0	1	0	1	0	2
2841:	0	0	0	0	1	1	0	0
2849:	0	0	0	0	0	0	1	0
2857:	0	0	0	0	0	1	0	0
2865:	0	1	0	0	1	0	1	0
2873:	0	0	0	0	1	0	0	2
2881:	0	1	1	0	0	0	1	1
2889:	0	0	0	1	1	0	0	1
2897:	2	0	0	1	0	0	0	1
2905:	0	0	1	0	2	1	0	2
2913:	0	2	0	0	1	1	1	1
2921:	2	2	3	4	0	1	0	0
2929:	1	0	0	0	0	0	0	0
2937:	0	0	0	0	0	1	1	0
2945:	1	0	0	0	0	0	0	0
2953:	0	0	1	0	1	1	0	0
2961:	0	0	0	0	0	2	1	0
2969:	0	0	0	0	0	0	0	1
2977:	2	3	3	2	1	0	0	1
2985:	2	0	0	0	0	1	1	0
2993:	0	0	0	0	0	0	0	1
3001:	0	0	0	1	0	0	1	0
3009:	0	0	0	0	0	0	0	2
3017:	0	0	0	0	0	0	0	0
3025:	1	0	0	0	1	0	1	1
3033:	0	0	0	0	0	1	0	0
3041:	0	0	0	0	0	0	0	0
3049:	0	0	0	0	1	2	0	1
3057:	0	0	0	0	0	1	0	0
3065:	0	0	0	0	0	0	0	1
3073:	0	0	0	0	0	0	0	0
3081:	1	0	0	0	0	1	0	0
3089:	0	0	0	0	0	0	0	0
3097:	0	0	0	1	0	0	1	1
3105:	0	0	0	0	0	1	0	0
3113:	0	0	0	0	0	0	0	0
3121:	0	0	1	1	0	0	0	0
3129:	0	0	0	0	0	0	1	0
3137:	0	1	0	0	0	0	0	0
3145:	1	1	0	0	0	0	0	0
3153:	1	0	1	0	0	0	0	0
3161:	0	0	0	1	0	0	0	0
3169:	0	0	0	0	1	0	0	0
3177:	0	0	1	0	0	0	1	0
3185:	0	1	0	0	0	0	0	0
3193:	0	0	1	0	0	1	0	0
3201:	0	0	0	1	0	0	1	0
3209:	1	0	0	0	0	0	0	0
3217:	1	0	0	2	0	0	1	0
3225:	0	0	0	0	0	0	0	0
3233:	0	0	1	0	0	0	0	0
3241:	0	0	0	0	0	0	1	0
3249:	0	0	0	0	1	1	0	0
3257:	0	0	0	0	0	0	0	0
3265:	0	0	1	0	0	1	0	0
3273:	0	0	0	0	0	0	1	0
3281:	0	0	0	0	0	0	0	0
3289:	0	0	0	0	0	0	0	0
3297:	1	0	1	2	0	0	0	1
3305:	0	0	1	0	1	0	0	0

3313:	0	0	0	1	0	0	0	1
3321:	1	0	0	0	0	0	0	0
3329:	1	0	0	0	0	0	1	1
3337:	0	1	0	0	0	0	0	0
3345:	0	0	0	1	0	1	0	1
3353:	0	1	0	0	0	0	0	0
3361:	0	0	0	1	0	0	0	0
3369:	0	1	0	0	0	0	0	0
3377:	0	0	0	0	0	1	0	0
3385:	0	0	0	0	1	0	0	0
3393:	1	0	0	0	0	0	0	1
3401:	0	0	0	0	0	0	0	2
3409:	0	0	1	1	0	0	0	0
3417:	1	0	0	0	1	0	0	1
3425:	0	0	1	0	0	0	0	0
3433:	0	0	0	0	0	1	0	0
3441:	1	0	0	0	0	0	0	1
3449:	0	0	0	0	0	1	0	0
3457:	0	1	0	0	0	1	1	0
3465:	0	0	2	0	0	1	1	0
3473:	0	0	0	0	0	0	1	1
3481:	0	0	0	1	0	1	0	0
3489:	0	0	0	0	0	0	0	0
3497:	0	0	0	0	0	0	0	0
3505:	0	0	0	0	0	0	1	0
3513:	0	0	1	0	0	0	0	0
3521:	0	1	0	0	1	1	0	1
3529:	0	1	0	1	1	1	1	0
3537:	0	1	1	0	1	0	0	0
3545:	0	0	0	0	0	1	0	0
3553:	0	0	1	1	0	1	0	0
3561:	0	0	0	0	0	0	0	0
3569:	0	0	0	0	1	0	0	0
3577:	0	1	0	0	1	0	0	0
3585:	0	0	0	0	0	0	0	0
3593:	1	0	0	0	0	0	0	0
3601:	0	0	0	0	0	0	0	0
3609:	0	0	0	0	0	0	0	1
3617:	0	0	0	0	0	0	0	0
3625:	0	0	1	0	0	1	0	0
3633:	0	0	0	0	0	1	2	0
3641:	0	0	3	1	0	0	0	0
3649:	0	0	0	0	0	0	0	0
3657:	0	0	0	0	0	0	1	0
3665:	0	0	0	0	1	0	0	2
3673:	0	0	0	0	0	0	0	0
3681:	0	0	0	0	1	0	0	0
3689:	0	0	0	0	0	0	0	0
3697:	0	0	0	0	0	0	0	0
3705:	0	0	1	0	0	0	0	0
3713:	0	0	0	0	0	0	0	0
3721:	0	1	0	0	0	0	0	0
3729:	0	0	0	0	0	0	0	0
3737:	0	1	1	0	0	0	0	0
3745:	0	0	0	0	0	0	0	1
3753:	0	1	0	0	0	0	0	0
3761:	0	0	0	0	0	0	0	1
3769:	0	0	0	0	1	0	0	1
3777:	0	0	0	0	0	0	0	0
3785:	1	0	0	0	0	0	0	0

3793:	0	0	0	0	0	0	0	0
3801:	0	0	0	1	0	0	0	0
3809:	0	0	0	0	0	0	0	0
3817:	0	0	0	0	0	0	0	0
3825:	0	0	0	1	0	0	0	0
3833:	0	0	0	0	0	0	0	0
3841:	0	1	0	0	0	0	0	0
3849:	0	0	0	0	0	0	0	0
3857:	0	1	0	0	0	0	1	0
3865:	1	0	0	0	0	0	0	1
3873:	1	0	0	0	0	0	0	0
3881:	0	1	1	0	0	0	0	0
3889:	0	0	0	0	0	0	0	0
3897:	0	0	0	1	0	0	0	0
3905:	0	1	0	0	0	0	0	1
3913:	0	0	1	0	0	0	0	0
3921:	0	0	0	1	0	1	1	0
3929:	0	0	0	1	0	0	0	0
3937:	0	0	0	0	0	0	0	0
3945:	0	0	1	0	1	0	0	0
3953:	0	0	0	0	0	0	0	0
3961:	0	0	0	0	0	0	0	0
3969:	0	0	0	1	1	0	0	0
3977:	0	0	0	0	0	1	0	1
3985:	0	0	0	0	1	0	0	0
3993:	0	1	0	0	0	0	0	0
4001:	0	0	1	0	0	0	0	0
4009:	0	0	0	0	0	0	0	0
4017:	0	0	0	0	0	0	1	0
4025:	0	0	0	0	0	1	0	0
4033:	0	0	0	0	0	0	0	0
4041:	0	0	0	0	0	0	1	1
4049:	0	0	0	1	0	0	0	0
4057:	1	0	0	0	0	0	0	0
4065:	0	2	0	0	0	1	0	0
4073:	1	0	0	0	0	0	0	0
4081:	0	0	1	0	2	0	1	1
4089:	0	1	0	0	0	1	0	0

Sample ID : 1111068-13

Acquisition date : 11-DEC-2011 15:44:43

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12/11/11

VAX/VMS Peak Search Report Generated 11-DEC-2011 16:46:58.53

Configuration : DKA100:[GAMMA.SCUSR.ARCHIVE]SMP_111106813_GE3_GAS1102_172297.
 Analyses by : PEAK V16.9 ENBACK V1.6 PEAKEFF V2.2
 Client ID : S12-34-32-111107
 Deposition Date :
 Sample Date : 7-NOV-2011 00:00:00. Acquisition date : 11-DEC-2011 15:44:43
 Sample ID : 1111068-13 Sample Quantity : 4.79360E+02 GRAM
 Sample type : SOIL Sample Geometry : 0
 Detector name : GE3 Detector Geometry: GAS-1102
 Elapsed live time: 0 01:00:00.00 Elapsed real time: 0 01:01:55.28 3.1%
 Start channel : 5 End channel : 4096
 Sensitivity : 2.40000 Gaussian : 15.00000
 Critical level : Yes

Post-NID Peak Search Report

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides
0	26.53*	452	10287	3.04	26.81	25	5	68.0		
0	32.24	539	8218	1.70	32.52	31	4	48.3		
0	46.64*	6936	16116	1.11	46.93	45	5	6.0		PB-210
0	53.60	1889	18575	1.19	53.89	52	5	22.1		
0	63.40*	7961	30495	1.22	63.69	61	6	7.3		TH-234
0	67.74	1323	21548	1.22	68.02	67	4	31.8		TI-44
1	74.59*	16515	22465	1.35	74.88	72	12	3.0	2.34E+03	AM-243
1	77.84*	26828	22429	1.36	78.12	72	12	2.1		TI-44
0	88.30	7542	29948	1.16	88.58	86	6	7.6		SN-126 CD-109
0	93.30*	9547	25410	1.19	93.58	91	6	5.8		
0	98.76	998	14572	1.34	99.04	98	5	37.0		
0	113.13*	745	17541	1.99	113.41	111	6	56.8		
0	144.04*	1735	17097	1.91	144.33	142	6	24.3		U-235 CE-141
0	154.51	1172	20138	1.29	154.80	152	7	40.7		
0	164.05*	663	15395	1.33	164.33	162	6	59.8		U-235
0	186.42*	16583	20989	1.61	186.71	183	9	3.5		RA-226
0	205.77	444	9431	1.14	206.06	205	5	66.4		U-235
3	236.82	1522	9439	1.92	237.12	233	15	20.5	2.19E+01	
3	242.36*	15029	5898	1.34	242.66	233	15	2.2		RA-224
0	257.75	1830	11299	4.26	258.05	254	9	21.5		
0	270.49*	2064	8719	2.95	270.79	267	7	15.6		
0	295.60*	32185	9033	1.29	295.90	292	8	1.5		PB-214
0	314.51	205	5319	1.49	314.80	313		6113.4		
0	323.77	210	4264	1.51	324.07	323	5	94.1		RA-223
0	330.30	267	6197	1.70	330.60	328	7	98.3		
0	352.35*	55388	9495	1.81	352.65	347	12	1.1		PB-214
0	378.78	187	3931	2.94	379.08	376		6106.9		
2	387.03	345	4016	1.91	387.33	384	10	59.8	1.41E+00	
2	389.45	559	3983	1.91	389.75	384	10	37.3		
3	402.12*	510	3407	1.69	402.43	400	10	35.5	3.23E+00	RN-219
3	405.39	464	4180	2.12	405.69	400	10	45.4		PB-211
0	455.12	351	3278	1.91	455.42	452	7	55.2		
0	462.54	373	3089	1.71	462.85	460	7	50.6		
0	470.90	165	2097	1.66	471.21	469	5	85.1		

AG
12/12/11

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides
0	480.47	357	2857	1.13	480.78	478	7	50.8		
0	487.72	523	3076	1.57	488.03	485	8	37.8		LA-140
0	511.50*	541	3555	3.89	511.81	507	10	42.3		
0	533.55	230	2046	1.90	533.86	531	6	63.4		
0	581.27	514	2627	1.65	581.58	578	9	37.0		
0	609.74*	38438	3412	1.47	610.06	605	10	1.2		BI-214
0	665.79	1046	1957	1.62	666.11	662	9	16.5		
0	684.46	122	1455	1.51	684.78	682	7	104.8		
0	703.89	351	1751	1.89	704.21	701	8	42.6		
0	719.75	237	1512	2.12	720.07	716	7	55.9		
0	743.00	395	1740	2.73	743.32	739	9	39.4		
0	753.29	137	1355	1.92	753.61	751	7	90.7		
0	768.65	3742	1994	1.60	768.98	764	10	5.5		
0	786.37	902	1943	1.99	786.70	782	10	19.5		
0	806.64	820	1737	1.71	806.96	803	9	19.6		
0	821.19	97	1185	1.84	821.52	819	6	114.9		
0	832.86	208	1407	1.87	833.19	830	7	61.3		PB-211
0	839.86	383	1571	1.65	840.19	837	8	37.3		
0	921.54	125	1249	3.79	921.87	919	7	95.4		
0	934.39	1774	1904	1.62	934.72	930	10	10.3		
0	964.49	164	1039	1.56	964.83	962	6	64.1		
0	1001.58*	468	1487	1.96	1001.92	997	10	32.3		PA-234M
0	1052.70	193	899	1.65	1053.04	1050	7	53.5		
0	1070.54	239	1320	2.35	1070.88	1066	10	58.4		
0	1120.79*	7939	1521	1.98	1121.14	1116	11	2.9		BI-214
0	1133.23	82	883	2.21	1133.57	1131	7	121.5		
0	1155.66	890	938	1.82	1156.00	1152	8	13.7		
0	1181.95	141	847	2.50	1182.30	1179	8	73.4		
0	1208.20	232	966	2.37	1208.55	1204	9	50.1		
0	1238.67*	2816	1235	1.86	1239.02	1234	11	6.1		
0	1253.57	220	1090	4.87	1253.92	1249	11	59.5		
0	1281.76	698	1110	2.32	1282.12	1277	12	20.6		
3	1378.21	1986	526	2.11	1378.57	1374	17	5.8	1.55E+00	
3	1385.79	443	703	2.52	1386.15	1374	17	22.8		
1	1401.85	676	559	2.34	1402.21	1396	18	14.0	2.62E+00	
1	1408.55	1063	558	2.35	1408.91	1396	18	9.6		
0	1461.49*	713	1025	2.34	1461.85	1457	11	18.9		K-40
0	1509.68	924	1040	2.25	1510.05	1505	11	15.0		
2	1539.09	180	501	2.65	1539.46	1536	13	40.9	2.82E+00	
2	1543.97	248	581	2.65	1544.34	1536	13	37.2		
0	1583.63	255	606	2.52	1584.01	1580	9	36.9		
3	1595.26	142	363	2.14	1595.64	1592	13	45.6	5.57E-01	LA-140
3	1600.02	170	344	2.00	1600.40	1592	13	38.6		
0	1661.33	493	488	2.35	1661.71	1655	14	21.0		
3	1680.34	34	180	2.79	1680.72	1678	22	127.1	5.92E+00	
3	1684.71	132	241	2.55	1685.09	1678	22	44.4		
0	1730.37	1295	435	2.28	1730.76	1725	13	8.7		
0	1765.17	6271	385	2.36	1765.56	1759	14	2.9		BI-214
0	1838.67	120	205	2.02	1839.06	1835	9	46.5		
0	1848.27	804	281	2.44	1848.66	1844	12	11.0		
0	1872.90	79	215	1.62	1873.30	1868	10	72.7		

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides
2	1891.61	45	207	3.74	1892.00	1887	18113.6		2.83E+00	
2	1896.90	68	204	3.40	1897.29	1887	18	86.2		
0	1906.35	23	85	2.53	1906.74	1905	5127.3			
0	1937.27	74	256	6.43	1937.67	1932	12	89.0		
0	2012.79	136	141	7.07	2013.19	2007	15	41.7		
0	2053.67	56	100	2.11	2054.07	2049	10	72.0		
0	2119.23*	440	75	2.45	2119.63	2116	9	11.9		
0	2151.73	27	38	5.63	2152.14	2147	10	96.9		
0	2160.86	12	22	3.02	2161.27	2158	6130.7			
0	2193.49	36	48	3.07	2193.90	2190	9	76.6		
4	2204.88*	1619	37	2.67	2205.29	2199	16	5.2	2.41E+00	BI-214
4	2210.46	54	21	3.56	2210.87	2199	16	46.7		
0	2294.33	90	40	2.92	2294.75	2290	10	33.8		
0	2332.87	14	6	1.85	2333.29	2330	7	82.9		
0	2350.78	8	2	2.73	2351.20	2349	5	89.5		
0	2378.28	7	5	2.55	2378.70	2376	5134.4			
0	2395.52	10	5	1.74	2395.94	2392	7	96.4		
0	2412.76	7	5	1.30	2413.18	2410	6118.1			
0	2448.55	484	5	2.74	2448.98	2444	12	9.3		
0	2507.53	8	2	2.48	2507.96	2504	7	87.6		
0	2518.40	12	0	1.25	2518.83	2515	8	57.7		
0	2525.28	7	0	1.33	2525.71	2523	6	75.6		
0	2615.76*	28	2	3.58	2616.20	2612	8	43.4		
0	3000.97	7	0	2.74	3001.43	2997	8	75.6		
0	3054.99	11	0	1.66	3055.45	3051	9	60.3		

Total number of lines in spectrum 110
 Number of unidentified lines 69
 Number of lines tentatively identified by NID 41 37.27%

Nuclide Type : NATURAL

Nuclide	Hlife	Decay	Wtd Mean		Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
			Uncorrected pCi/GRAM	Decay Corr pCi/GRAM			
K-40	1.28E+09Y	1.00	2.762E+01	2.762E+01	0.589E+01	21.32	
PB-210	22.26Y	1.00	1.533E+02	1.538E+02	0.190E+02	12.38	
PB-211	3.28E+04Y	1.00	2.101E+01	2.101E+01	0.784E+01	37.31	
BI-214	1602.00Y	1.00	1.733E+02	1.733E+02	0.094E+02	5.41	
PB-214	1602.00Y	1.00	1.799E+02	1.799E+02	0.123E+02	6.82	
RN-219	3.28E+04Y	1.00	1.085E+01	1.085E+01	0.401E+01	36.97	
RA-223	3.28E+04Y	1.00	6.195E+00	6.195E+00	5.862E+00	94.63	
RA-224	1.41E+10Y	1.00	3.441E+02	3.441E+02	0.347E+02	10.10	
RA-226	1602.00Y	1.00	3.867E+02	3.867E+02	7.087E+02	183.26	
PA-234M	4.47E+09Y	1.00	1.600E+02	1.600E+02	0.540E+02	33.74	
TH-234	4.47E+09Y	1.00	1.479E+02	1.479E+02	0.182E+02	12.32	
U-235	7.04E+08Y	1.00	8.654E+00	8.654E+00	4.078E+00	47.12	
Total Activity :			1.620E+03	1.620E+03			

Nuclide Type : ACTIVATION

Nuclide	Hlife	Decay	Wtd Mean		Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
			Uncorrected pCi/GRAM	Decay Corr pCi/GRAM			
TI-44	63.00Y	1.00	9.556E-01	9.566E-01	3.219E-01	33.65	
LA-140	12.79D	6.55	8.209E-01	5.376E+00	1.827E+00	33.98	
AM-243	7380.00Y	1.00	1.644E+01	1.644E+01	0.210E+01	12.77	
Total Activity :			1.822E+01	2.278E+01			

Nuclide Type : FISSION

Nuclide	Hlife	Decay	Wtd Mean		Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
			Uncorrected pCi/GRAM	Decay Corr pCi/GRAM			
CD-109	464.00D	1.05	1.284E+02	1.352E+02	0.247E+02	18.28	
SN-126	1.00E+05Y	1.00	1.292E+01	1.292E+01	0.222E+01	17.19	
CE-141	32.50D	2.10	2.437E+00	5.105E+00	1.859E+00	36.41	
Total Activity :			1.437E+02	1.532E+02			

Grand Total Activity : 1.782E+03 1.796E+03

Flags: "K" = Keyline not found "M" = Manually accepted
 "E" = Manually edited "A" = Nuclide specific abn. limit

Nuclide Type: NATURAL

Nuclide	Energy	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error	Status
K-40	1460.81	10.67*	3.789E-01	2.762E+01	2.762E+01	21.32	OK
Final Mean for 1 Valid Peaks = 2.762E+01+/- 5.887E+00 (21.32%)							
PB-210	46.50	4.05*	1.750E+00	1.533E+02	1.538E+02	12.38	OK
Final Mean for 1 Valid Peaks = 1.538E+02+/- 1.903E+01 (12.38%)							
PB-211	404.84	2.90*	1.126E+00	2.224E+01	2.224E+01	46.54	OK
	831.96	2.90	5.812E-01	1.937E+01	1.937E+01	62.02	OK
Final Mean for 2 Valid Peaks = 2.101E+01+/- 7.841E+00 (37.31%)							
BI-214	609.31	46.30*	7.707E-01	1.687E+02	1.687E+02	10.63	OK
	1120.29	15.10	4.552E-01	1.809E+02	1.809E+02	10.96	OK
	1764.49	15.80	3.416E-01	1.820E+02	1.820E+02	10.21	OK
	2204.22	4.98	3.132E-01	1.626E+02	1.626E+02	11.59	OK
Final Mean for 4 Valid Peaks = 1.733E+02+/- 9.380E+00 (5.41%)							
PB-214	295.21	19.19	1.480E+00	1.774E+02	1.774E+02	9.36	OK
	351.92	37.19*	1.276E+00	1.829E+02	1.829E+02	9.95	OK
Final Mean for 2 Valid Peaks = 1.799E+02+/- 1.227E+01 (6.82%)							
RN-219	401.80	6.50*	1.133E+00	1.085E+01	1.085E+01	36.97	OK
Final Mean for 1 Valid Peaks = 1.085E+01+/- 4.011E+00 (36.97%)							
RA-223	323.87	3.88*	1.370E+00	6.195E+00	6.195E+00	94.63	OK
Final Mean for 1 Valid Peaks = 6.195E+00+/- 5.862E+00 (94.63%)							
RA-224	240.98	3.95*	1.732E+00	3.441E+02	3.441E+02	10.10	OK
Final Mean for 1 Valid Peaks = 3.441E+02+/- 3.475E+01 (10.10%)							
RA-226	186.21	3.28*	2.048E+00	3.867E+02	3.867E+02	183.26	OK
Final Mean for 1 Valid Peaks = 3.867E+02+/- 7.087E+02 (183.26%)							
PA-234M	1001.03	0.92*	4.973E-01	1.600E+02	1.600E+02	33.74	OK
Final Mean for 1 Valid Peaks = 1.600E+02+/- 5.400E+01 (33.74%)							
TH-234	63.29	3.80*	2.218E+00	1.479E+02	1.479E+02	12.32	OK
Final Mean for 1 Valid Peaks = 1.479E+02+/- 1.823E+01 (12.32%)							

Nuclide Type: NATURAL

Nuclide	Energy	%Abn	%Eff	Uncorrected Decay Corr		2-Sigma %Error	Status
				pCi/GRAM	pCi/GRAM		
U-235	143.76	10.50*	2.314E+00	1.118E+01	1.118E+01	30.90	<<WM Interf
	163.35	4.70	2.193E+00	1.008E+01	1.008E+01	63.13	OK
	205.31	4.70	1.931E+00	7.662E+00	7.662E+00	69.34	OK

Final Mean for 2 Valid Peaks = 8.654E+00+/- 4.078E+00 (47.12%)

Nuclide Type: ACTIVATION

Nuclide	Energy	%Abn	%Eff	Uncorrected Decay Corr		2-Sigma %Error	Status
				pCi/GRAM	pCi/GRAM		
TI-44	67.88	94.40*	2.297E+00	9.556E-01	9.566E-01	33.65	OK
	78.34	96.00	2.417E+00	1.811E+01	1.812E+01	13.40	<<WM N-Sigma

Final Mean for 1 Valid Peaks = 9.566E-01+/- 3.219E-01 (33.65%)

LA-140	328.77	20.50	1.353E+00	-----	Line Not Found	-----	Absent
	487.03	45.50	9.497E-01	1.897E+00	1.242E+01	39.31	OK
	815.85	23.50	5.913E-01	-----	Line Not Found	-----	Absent
	1596.49	95.49*	3.597E-01	6.458E-01	4.229E+00	46.58	OK

Final Mean for 2 Valid Peaks = 5.376E+00+/- 1.827E+00 (33.98%)

AM-243	74.67	66.00*	2.383E+00	1.644E+01	1.644E+01	12.77	OK
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Final Mean for 1 Valid Peaks = 1.644E+01+/- 2.099E+00 (12.77%)

Nuclide Type: FISSION

Nuclide	Energy	%Abn	%Eff	Uncorrected Decay Corr		2-Sigma %Error	Status
				pCi/GRAM	pCi/GRAM		
CD-109	88.03	3.72*	2.473E+00	1.284E+02	1.352E+02	18.28	OK

Final Mean for 1 Valid Peaks = 1.352E+02+/- 2.472E+01 (18.28%)

SN-126	87.57	37.00*	2.471E+00	1.292E+01	1.292E+01	17.19	OK
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Final Mean for 1 Valid Peaks = 1.292E+01+/- 2.221E+00 (17.19%)

CE-141	145.44	48.40*	2.304E+00	2.437E+00	5.105E+00	36.41	OK
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Final Mean for 1 Valid Peaks = 5.105E+00+/- 1.859E+00 (36.41%)

Flag: "*" = Keyline

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.762E+01	5.887E+00	4.602E+00	4.127E-01	6.002
TI-44	9.566E-01	3.219E-01	4.776E-01	4.850E-02	2.003
CD-109	1.352E+02	2.472E+01	1.250E+01	2.015E+00	10.822
SN-126	1.292E+01	2.221E+00	1.193E+00	1.776E-01	10.825
LA-140	5.376E+00	1.827E+00	2.850E+00	2.532E-01	1.886
CE-141	5.105E+00	1.859E+00	1.490E+00	3.996E-01	3.427
PB-210	1.538E+02	1.903E+01	1.119E+01	1.127E+00	13.742
PB-211	2.101E+01	7.841E+00	1.308E+01	1.251E+00	1.607
BI-214	1.733E+02	9.380E+00	8.091E-01	7.912E-02	214.196
PB-214	1.799E+02	1.227E+01	9.373E-01	8.476E-02	191.938
RN-219	1.085E+01	4.011E+00	5.791E+00	5.528E-01	1.873
RA-223	6.195E+00	5.862E+00	8.722E+00	7.592E-01	0.710
RA-224	3.441E+02	3.475E+01	8.534E+00	7.691E-01	40.321
RA-226	3.867E+02	7.087E+02	1.063E+01	1.947E+01	36.392
PA-234M	1.600E+02	5.400E+01	4.927E+01	4.361E+00	3.248
TH-234	1.479E+02	1.823E+01	1.149E+01	1.046E+00	12.871
U-235	8.654E+00	4.078E+00	3.243E+00	6.053E-01	2.668
AM-243	1.644E+01	2.099E+00	7.125E-01	8.361E-02	23.079

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	1.717E+00		4.093E+00	5.236E+00	5.209E-01	0.328
NA-22	-2.201E-01		3.127E-01	4.515E-01	4.137E-02	-0.487
AL-26	1.315E-01		1.677E-01	2.910E-01	2.603E-02	0.452
SC-46	-4.428E-04		3.724E-01	6.309E-01	5.114E-02	-0.001
V-48	-9.579E-03		1.227E+00	2.071E+00	1.804E-01	-0.005
CR-51	-1.370E+00		6.296E+00	8.121E+00	7.400E-01	-0.169
MN-54	4.181E-01		3.879E-01	4.890E-01	4.209E-02	0.855
CO-56	8.374E-02		3.886E-01	5.962E-01	5.072E-02	0.140
CO-57	2.607E-01		2.448E-01	4.062E-01	4.718E-02	0.642
CO-58	-7.050E-02		3.851E-01	5.865E-01	5.169E-02	-0.120
FE-59	-6.283E-01		8.428E-01	1.384E+00	1.418E-01	-0.454
CO-60	-1.805E-01		3.141E-01	4.592E-01	4.667E-02	-0.393
ZN-65	4.965E-01		6.797E-01	1.040E+00	1.014E-01	0.477
SE-75	2.289E-01		5.181E-01	6.830E-01	5.841E-02	0.335
RB-82	4.300E+00		6.309E+00	7.918E+00	7.137E-01	0.543
RB-83	-1.818E-01		6.305E-01	9.830E-01	1.617E-01	-0.185
KR-85	1.472E+02		5.465E+01	8.639E+01	8.652E+00	1.704
SR-85	9.265E-01		3.440E-01	5.438E-01	5.446E-02	1.704
Y-88	6.296E-01		2.599E-01	4.369E-01	3.906E-02	1.441
NB-93M	5.592E+01		4.510E+01	3.165E+01	2.340E+01	1.767
NB-94	2.056E-01		2.665E-01	4.579E-01	3.794E-02	0.449
NB-95	7.573E+00		9.873E-01	1.200E+00	1.089E-01	6.312
ZR-95	1.122E-01		6.657E-01	1.028E+00	1.023E-01	0.109
RU-103	6.233E-02		4.524E-01	7.135E-01	1.073E-01	0.087
RU-106	-3.260E-01		2.128E+00	3.668E+00	5.165E-01	-0.089

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AG-108M	3.922E-01		2.874E-01	4.533E-01	4.198E-02	0.865
AG-110M	-9.452E-02		2.689E-01	4.133E-01	3.897E-02	-0.229
SN-113	3.473E-01		4.797E-01	7.079E-01	6.874E-02	0.491
TE123M	4.034E-02		3.765E-01	5.062E-01	5.163E-02	0.080
SB-124	2.947E-02		3.662E-01	5.712E-01	5.607E-02	0.052
I-125	-5.264E+00		7.373E+00	1.164E+01	1.632E+00	-0.452
SB-125	1.481E+00		8.694E-01	1.385E+00	1.368E-01	1.069
SB-126	7.257E+00	+	4.120E+00	5.451E+00	5.053E-01	1.331
I-129	-7.687E-04		7.954E-01	1.134E+00	2.109E-01	-0.001
I-131	2.007E-02		5.058E+00	8.073E+00	7.414E-01	0.002
BA-133	4.529E+00		7.655E-01	7.143E-01	9.653E-02	6.340
CS-134	7.723E-02		2.595E-01	4.062E-01	3.990E-02	0.190
CS-135	7.004E+00		1.611E+00	2.318E+00	1.948E-01	3.021
CS-136	7.858E-01		2.293E+00	3.491E+00	3.307E-01	0.225
CS-137	1.296E-01		2.714E-01	4.254E-01	4.003E-02	0.305
LA-138	-1.312E-01		4.226E-01	6.923E-01	6.015E-02	-0.190
CE-139	5.472E-01		3.387E-01	5.147E-01	5.112E-02	1.063
BA-140	3.270E+00		6.109E+00	9.514E+00	3.190E+00	0.344
CE-144	5.373E-01		1.980E+00	3.286E+00	3.666E-01	0.164
PM-144	-7.282E-02		2.595E-01	3.982E-01	3.724E-02	-0.183
PM-145	-1.524E+00		1.750E+00	2.265E+00	1.492E+00	-0.673
PM-146	1.373E+00	+	7.719E-01	9.443E-01	9.310E-02	1.454
ND-147	5.502E+00		1.530E+01	2.414E+01	2.418E+00	0.228
EU-152	2.887E+01	+	4.362E+00	5.106E+00	5.580E-01	5.655
GD-153	-8.272E-01		9.906E-01	1.514E+00	2.017E-01	-0.546
EU-154	-6.260E-01		8.645E-01	1.247E+00	1.143E-01	-0.502
EU-155	7.823E-01		1.135E+00	1.560E+00	2.280E-01	0.501
EU-156	-5.758E+00		1.275E+01	1.917E+01	4.392E+00	-0.300
HO-166M	7.410E-03		5.659E-01	6.969E-01	6.480E-02	0.011
HF-172	-7.550E-01		1.765E+00	2.918E+00	3.344E-01	-0.259
LU-172	1.346E+00		1.548E+01	2.604E+01	2.493E+00	0.052
LU-173	6.361E+00		1.354E+00	1.925E+00	1.598E-01	3.304
HF-175	-3.569E-01		4.135E-01	5.987E-01	5.354E-02	-0.596
LU-176	-1.394E-01		2.239E-01	3.565E-01	3.024E-02	-0.391
TA-182	9.663E+01	+	1.060E+01	5.316E+00	5.199E-01	18.177
IR-192	7.841E-02		7.932E-01	1.007E+00	9.989E-02	0.078
HG-203	-1.809E+00		4.977E-01	7.249E-01	6.065E-02	-2.495
BI-207	-4.933E-02		2.165E-01	3.737E-01	3.718E-02	-0.132
TL-208	1.544E+00		7.420E-01	1.291E+00	1.279E-01	1.196
BI-210M	4.544E-01		4.997E-01	7.514E-01	6.430E-02	0.605
BI-212	-3.361E-01		2.017E+00	3.292E+00	3.044E-01	-0.102
PB-212	2.159E+00		5.264E-01	8.120E-01	7.353E-02	2.659
RA-225	-4.850E+00		4.490E+00	7.559E+00	9.017E-01	-0.642
TH-227	1.179E+01	+	2.686E+00	3.228E+00	2.939E-01	3.652
AC-228	3.931E-01		1.020E+00	1.738E+00	1.411E-01	0.226
TH-230	2.441E+02	+	8.212E+01	1.247E+02	1.260E+01	1.958
PA-231	4.901E+00		1.031E+01	1.535E+01	1.294E+00	0.319
TH-231	6.769E+00	+	4.908E+00	5.947E+00	1.472E+00	1.138

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PA-233	1.123E+00		1.431E+00	2.108E+00	4.729E-01	0.533
PA-234	-3.127E-02		9.563E-01	1.585E+00	1.783E-01	-0.020
NP-237	1.871E+00		2.745E+00	3.775E+00	5.517E-01	0.495
AM-241	2.587E+00		8.915E-01	1.230E+00	1.013E-01	2.103
CM-243	-3.809E+00		1.588E+00	2.436E+00	1.986E-01	-1.563

Total number of lines in spectrum 110
 Number of unidentified lines 69
 Number of lines tentatively identified by NID 41 37.27%

Nuclide Type : NATURAL

Nuclide	Hlife	Decay	Wtd Mean		Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
			Uncorrected pCi/GRAM	Decay Corr pCi/GRAM			
K-40	1.28E+09Y	1.00	2.762E+01	2.762E+01	0.589E+01	21.32	
PB-210	22.26Y	1.00	1.533E+02	1.538E+02	0.190E+02	12.38	
PB-211	3.28E+04Y	1.00	2.101E+01	2.101E+01	0.784E+01	37.31	
BI-214	1602.00Y	1.00	1.733E+02	1.733E+02	0.094E+02	5.41	
PB-214	1602.00Y	1.00	1.799E+02	1.799E+02	0.123E+02	6.82	
RN-219	3.28E+04Y	1.00	1.085E+01	1.085E+01	0.401E+01	36.97	
RA-223	3.28E+04Y	1.00	6.195E+00	6.195E+00	5.862E+00	94.63	
RA-224	1.41E+10Y	1.00	3.441E+02	3.441E+02	0.347E+02	10.10	
RA-226	1602.00Y	1.00	3.867E+02	3.867E+02	7.087E+02	183.26	
PA-234M	4.47E+09Y	1.00	1.600E+02	1.600E+02	0.540E+02	33.74	
TH-234	4.47E+09Y	1.00	1.479E+02	1.479E+02	0.182E+02	12.32	
U-235	7.04E+08Y	1.00	8.654E+00	8.654E+00	4.078E+00	47.12	
Total Activity :			1.620E+03	1.620E+03			

Nuclide Type : ACTIVATION

Nuclide	Hlife	Decay	Wtd Mean		Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
			Uncorrected pCi/GRAM	Decay Corr pCi/GRAM			
TI-44	63.00Y	1.00	9.556E-01	9.566E-01	3.219E-01	33.65	
LA-140	12.79D	6.55	8.209E-01	5.376E+00	1.827E+00	33.98	
AM-243	7380.00Y	1.00	1.644E+01	1.644E+01	0.210E+01	12.77	
Total Activity :			1.822E+01	2.278E+01			

Nuclide Type : FISSION

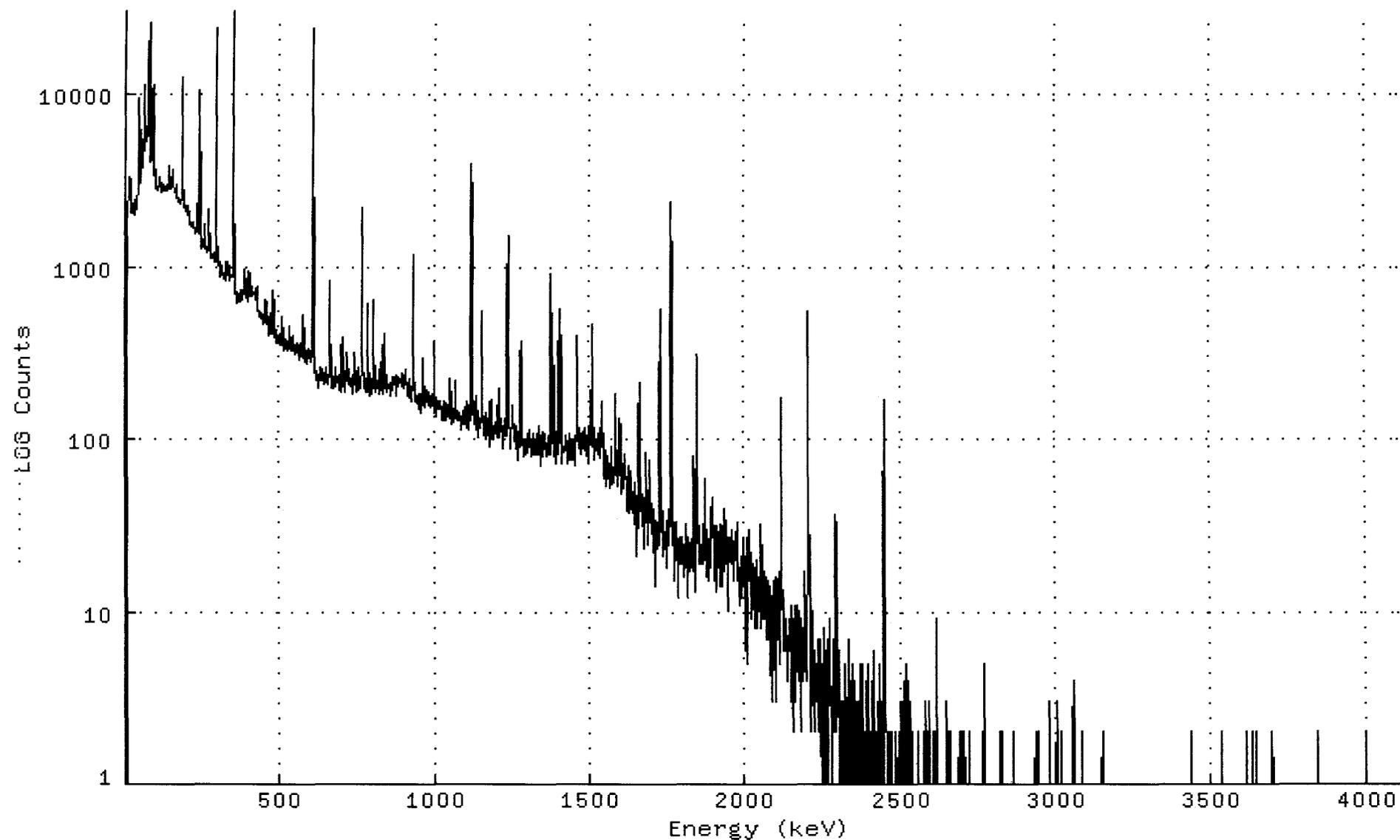
Nuclide	Hlife	Decay	Wtd Mean		Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
			Uncorrected pCi/GRAM	Decay Corr pCi/GRAM			
CD-109	464.00D	1.05	1.284E+02	1.352E+02	0.247E+02	18.28	
SN-126	1.00E+05Y	1.00	1.292E+01	1.292E+01	0.222E+01	17.19	
CE-141	32.50D	2.10	2.437E+00	5.105E+00	1.859E+00	36.41	
Total Activity :			1.437E+02	1.532E+02			

Grand Total Activity : 1.782E+03 1.796E+03

Flags: "K" = Keyline not found
 "E" = Manually edited

"M" = Manually accepted
 "A" = Nuclide specific abn. limit

Spectrum : DKA100:[GAMMA.SCUSR.ARCHIVE]SMP_111106813_GE3_GAS1102_172297.CNF;1
Title :
Sample Title: S12-34-32-111107
Start Time: 11-DEC-2011 15:44 Sample Time: 7-NOV-2011 00:00: Energy Offset: -2.78447E-01
Real Time : 0 01:01:55.28 Sample ID : 1111068-13 Energy Slope : 9.99940E-01
Live Time : 0 01:00:00.00 Sample Type: SOIL Energy Quad : 0.00000E+00



Channel Contents for DKA100: [GAMMA.SCUSR.ARCHIVE] SMP_111106813_GE3_GAS1102_1722

Channel

1:	0	0	0	0	0	0	0	0
9:	107	2200	2547	2454	3003	2731	2479	3285
17:	3050	2356	2365	2379	2169	2008	1991	2048
25:	2103	2268	2087	2265	2031	2060	1989	2343
33:	2407	2018	2127	2211	2330	2269	2352	2413
41:	2635	2662	2725	2987	2977	3691	9420	3972
49:	3047	3726	3815	3448	4165	5413	3736	3702
57:	3840	4018	4438	4708	4958	5215	6775	11007
65:	5393	5168	5372	6436	5716	5347	5565	5678
73:	5778	6190	16092	12708	15796	25296	5667	6403
81:	5420	5883	3946	7252	6298	4048	6592	10656
89:	4806	5904	5484	4241	11032	6161	4408	3721
97:	2920	3227	3570	3000	2984	2789	2844	2770
105:	2733	2860	2848	2868	2894	3008	3041	3041
113:	3252	3123	2944	2897	2809	2807	2646	2811
121:	2829	2773	2953	2807	2744	2845	2817	2774
129:	2866	2731	2839	2887	2769	2809	2789	2946
137:	2736	2882	2855	2862	2813	2830	2907	3726
145:	3735	2840	2806	2933	2968	2879	3030	2975
153:	3029	3129	3595	2936	2876	2770	2801	2669
161:	2701	2670	2696	2935	2646	2647	2475	2491
169:	2491	2455	2380	2391	2469	2362	2400	2357
177:	2383	2363	2381	2346	2311	2369	2408	2411
185:	2579	7813	12196	3123	2470	2313	2299	2281
193:	2166	2225	2165	2227	2244	2085	2129	2154
201:	2057	2157	2104	1942	1964	2256	1937	1885
209:	1833	1855	1914	1727	1698	1757	1731	1799
217:	1702	1713	1747	1765	1652	1690	1700	1676
225:	1716	1547	1593	1626	1638	1609	1547	1657
233:	1572	1605	1551	2041	2297	1517	1724	1574
241:	1537	6955	10368	1961	1444	1516	1438	1375
249:	1263	1340	1357	1291	1292	1292	1394	1442
257:	1755	1385	1718	1711	1245	1187	1266	1237
265:	1209	1213	1210	1208	1370	2134	1640	1999
273:	1227	1321	1525	1418	1140	1093	1105	1119
281:	1145	1166	1114	1162	1099	1155	1203	1163
289:	1091	1107	1124	1056	1062	1160	7747	23471
297:	4363	1224	1141	1189	1295	1018	1066	1004
305:	1044	1045	931	863	866	916	905	899
313:	923	912	1009	938	909	833	906	902
321:	848	865	835	968	1040	810	821	888
329:	814	1016	1048	885	903	910	907	857
337:	811	864	1004	853	834	856	886	855
345:	864	882	857	862	900	945	1985	22304
353:	30343	2958	1055	1036	912	736	710	697
361:	652	634	709	659	640	607	685	629
369:	652	677	670	618	693	669	689	612
377:	717	706	718	681	684	633	672	678
385:	707	678	838	845	874	946	731	674
393:	650	666	754	684	653	634	725	614
401:	704	930	888	749	846	902	795	668
409:	667	754	714	705	700	681	672	689
417:	709	676	701	696	703	645	662	717
425:	631	654	711	761	679	651	609	637

433:	541	520	537	549	525	508	549	503
441:	528	496	506	519	519	520	518	512
449:	479	467	488	460	501	501	596	628
457:	468	475	453	465	470	544	617	469
465:	462	435	422	463	397	481	528	439
473:	417	408	468	438	408	421	415	427
481:	714	458	399	380	427	411	501	632
489:	444	402	397	385	356	388	385	384
497:	385	398	357	376	360	406	364	372
505:	354	355	349	349	397	455	491	508
513:	457	410	386	365	352	323	325	371
521:	338	327	351	356	340	344	368	330
529:	321	324	339	358	366	452	427	334
537:	362	349	351	382	346	322	353	378
545:	355	341	363	396	321	325	332	326
553:	350	316	310	331	328	327	313	352
561:	320	333	310	331	287	336	337	344
569:	298	316	335	306	322	353	310	333
577:	295	304	304	397	514	361	309	334
585:	323	295	277	277	322	287	300	296
593:	272	328	290	317	316	290	301	320
601:	316	278	302	290	314	338	300	569
609:	6781	23346	8613	709	481	409	353	280
617:	259	250	221	243	219	230	215	227
625:	225	194	235	217	229	206	213	241
633:	233	255	259	232	214	220	234	252
641:	245	240	217	216	234	207	239	209
649:	208	248	254	225	228	208	230	225
657:	206	222	212	219	225	236	233	224
665:	345	818	514	235	203	195	219	205
673:	202	228	208	207	194	216	212	200
681:	208	203	226	260	224	226	229	209
689:	210	222	217	207	226	191	202	232
697:	212	220	230	241	186	239	320	389
705:	266	236	243	223	223	200	246	229
713:	212	187	208	206	214	230	249	316
721:	318	216	231	250	231	230	221	205
729:	219	203	215	211	200	208	212	218
737:	233	180	192	186	213	261	317	316
745:	227	225	198	201	187	193	193	205
753:	236	260	209	200	189	199	209	204
761:	202	206	194	212	205	252	372	794
769:	2167	1058	258	225	193	199	196	203
777:	194	210	221	192	184	204	213	185
785:	227	503	600	292	194	241	186	203
793:	208	178	199	192	199	197	205	180
801:	219	201	194	195	214	390	628	356
809:	195	198	187	192	203	184	211	195
817:	215	208	209	197	241	251	201	183
825:	197	210	237	190	212	195	210	259
833:	301	232	202	216	182	192	309	409
841:	237	234	196	195	194	202	187	231
849:	219	194	208	199	204	207	194	194
857:	193	209	211	178	202	209	204	221
865:	227	191	195	193	201	207	225	212
873:	209	212	210	188	212	209	206	233
881:	208	176	220	218	214	209	227	219
889:	212	223	210	213	213	223	225	234
897:	200	229	241	211	208	195	207	216
905:	233	234	210	210	213	204	248	228

913:	196	188	202	188	200	176	174	207
921:	197	207	221	183	185	177	185	198
929:	164	186	194	191	244	642	1161	451
937:	216	193	200	208	162	178	182	158
945:	164	171	176	164	177	169	182	175
953:	149	179	160	181	173	164	139	180
961:	178	157	172	221	289	208	156	199
969:	190	199	153	187	167	185	163	186
977:	175	162	183	190	163	187	158	177
985:	166	155	161	156	160	156	153	170
993:	180	171	154	165	155	179	139	173
1001:	279	359	219	152	170	133	146	161
1009:	149	163	161	164	160	149	157	157
1017:	164	162	148	163	160	153	153	148
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1033:	156	160	156	160	126	135	148	138
1041:	128	136	137	137	133	154	155	129
1049:	132	138	136	170	223	161	138	126
1057:	121	140	152	134	133	130	125	126
1065:	149	126	131	158	155	214	208	161
1073:	132	145	129	126	140	129	138	139
1081:	127	127	141	142	118	112	133	124
1089:	129	114	140	125	128	144	139	121
1097:	128	140	153	124	138	121	140	163
1105:	151	148	130	116	148	140	146	133
1113:	138	155	111	139	135	135	274	1572
1121:	3914	2384	420	159	169	163	137	132
1129:	129	129	122	123	150	177	167	114
1137:	112	141	128	119	144	127	101	117
1145:	134	110	123	120	119	114	132	117
1153:	138	150	296	552	327	145	103	119
1161:	134	113	121	125	113	117	100	127
1169:	141	120	115	132	119	127	111	103
1177:	115	116	89	114	129	160	167	129
1185:	101	99	118	108	100	106	108	100
1193:	117	106	107	111	113	123	108	106
1201:	119	101	116	108	117	112	127	190
1209:	195	142	106	101	106	109	112	127
1217:	121	114	129	110	110	93	111	87
1225:	97	108	121	121	107	130	121	114
1233:	114	104	109	124	198	722	1486	769
1241:	181	115	119	127	103	104	102	109
1249:	88	113	115	135	129	154	125	150
1257:	97	107	97	102	99	101	106	88
1265:	98	119	115	105	103	100	104	75
1273:	86	110	97	113	90	93	115	141
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1289:	92	100	90	90	96	82	92	83
1297:	88	91	97	101	83	91	96	106
1305:	105	90	102	105	105	93	112	78
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1321:	95	80	94	94	82	87	95	81
1329:	97	91	106	104	87	82	92	97
1337:	95	107	87	82	119	115	95	79
1345:	100	70	81	90	109	78	88	106
1353:	90	99	106	88	96	95	100	89
1361:	85	84	90	94	85	86	79	86
1369:	104	82	96	99	95	80	84	114
1377:	276	798	904	315	121	107	93	116
1385:	151	262	212	115	92	97	79	104

1393:	109	98	71	89	92	82	92	96
1401:	178	365	284	151	95	104	148	342
1409:	554	287	113	103	71	88	86	92
1417:	88	88	89	88	84	84	86	89
1425:	92	99	104	97	79	95	97	76
1433:	71	83	76	107	87	91	75	88
1441:	93	83	82	98	75	76	76	99
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1457:	81	95	83	133	312	395	240	116
1465:	97	100	89	105	116	89	89	82
1473:	107	92	99	100	102	92	94	99
1481:	88	97	110	86	114	99	106	85
1489:	96	84	103	82	91	104	83	72
1497:	93	107	119	90	104	91	108	96
1505:	91	94	112	148	252	463	362	155
1513:	109	102	76	115	90	108	104	92
1521:	87	90	90	98	85	95	87	82
1529:	84	85	105	106	84	91	103	77
1537:	86	94	146	136	111	94	89	164
1545:	138	86	78	59	70	86	64	53
1553:	72	73	68	69	86	58	78	77
1561:	73	59	70	71	51	72	62	57
1569:	69	54	90	66	60	69	65	56
1577:	60	59	68	59	60	75	128	179
1585:	153	85	61	61	80	69	53	72
1593:	63	67	109	117	84	61	81	131
1601:	115	68	48	56	54	52	52	52
1609:	66	61	71	61	58	82	61	69
1617:	59	61	59	51	56	45	56	38
1625:	58	50	53	49	60	69	37	54
1633:	39	50	48	64	46	40	47	37
1641:	44	40	49	38	32	44	42	44
1649:	56	39	39	38	36	38	21	43
1657:	42	47	57	46	120	212	163	67
1665:	47	41	43	32	48	35	34	31
1673:	36	38	36	32	32	28	23	46
1681:	36	39	33	58	83	53	46	30
1689:	35	27	24	50	51	75	68	39
1697:	36	36	28	33	40	36	42	31
1705:	32	31	22	39	28	33	34	28
1713:	30	27	14	32	26	32	27	28
1721:	23	32	28	39	34	38	24	38
1729:	170	451	554	217	65	29	40	37
1737:	33	29	24	31	21	27	28	29
1745:	23	27	27	24	26	18	30	34
1753:	21	28	39	24	26	26	36	31
1761:	33	44	144	738	2192	2328	810	145
1769:	54	30	41	30	19	22	25	25
1777:	33	15	33	27	24	21	22	20
1785:	26	16	13	19	12	24	23	27
1793:	22	21	19	23	27	23	24	19
1801:	22	19	23	21	16	24	19	21
1809:	23	19	31	32	22	18	20	27
1817:	22	24	21	12	21	24	18	24
1825:	19	25	17	26	25	19	19	18
1833:	26	19	17	21	25	42	78	57
1841:	36	23	26	28	13	45	121	304
1849:	306	130	38	26	31	21	22	20
1857:	26	19	19	24	21	19	22	22
1865:	20	19	23	21	21	32	26	26

1873:	32	58	38	24	16	26	30	18
1881:	24	18	25	21	20	26	24	15
1889:	21	22	40	32	27	34	22	31
1897:	45	31	33	35	31	31	19	15
1905:	19	25	20	31	13	21	20	24
1913:	14	29	19	19	27	24	22	14
1921:	19	28	19	21	32	14	31	20
1929:	21	17	19	22	22	17	33	29
1937:	39	30	34	31	34	20	19	25
1945:	25	25	16	27	10	16	23	23
1953:	27	21	21	26	22	30	21	19
1961:	23	26	19	18	18	15	23	23
1969:	28	20	23	29	25	20	33	16
1977:	25	21	19	17	13	15	11	15
1985:	17	18	15	21	21	12	15	18
1993:	13	15	25	22	16	26	14	18
2001:	10	11	6	17	21	8	5	18
2009:	15	19	25	30	23	22	21	15
2017:	20	16	17	22	9	15	20	14
2025:	16	11	14	19	14	13	8	12
2033:	12	18	14	11	20	13	12	16
2041:	8	11	16	15	13	11	13	11
2049:	9	15	8	13	24	32	19	16
2057:	11	9	11	14	11	12	17	11
2065:	9	15	8	11	14	16	12	7
2073:	9	7	7	15	9	8	13	14
2081:	11	12	8	5	6	3	12	7
2089:	7	12	10	15	10	9	10	12
2097:	7	3	13	7	9	13	16	15
2105:	9	12	7	11	8	10	17	17
2113:	8	9	10	5	21	59	141	173
2121:	79	18	10	12	6	9	13	9
2129:	6	8	6	6	6	9	6	5
2137:	4	6	6	5	7	7	9	8
2145:	9	7	6	3	11	9	9	11
2153:	2	9	3	2	2	2	5	8
2161:	5	11	3	7	4	5	6	7
2169:	6	11	6	7	4	9	7	10
2177:	4	4	9	7	6	2	5	6
2185:	4	8	7	5	4	5	6	10
2193:	13	17	14	6	5	8	4	9
2201:	10	15	83	303	544	498	178	38
2209:	20	15	9	14	4	2	4	5
2217:	10	5	6	7	5	6	3	5
2225:	2	3	5	3	3	4	5	3
2233:	6	2	5	6	7	3	7	5
2241:	5	7	3	2	1	3	4	5
2249:	2	3	3	4	3	8	1	3
2257:	3	1	3	2	6	4	3	7
2265:	1	6	6	6	5	3	3	5
2273:	9	4	4	2	2	2	1	3
2281:	2	7	3	2	2	6	3	7
2289:	5	2	3	6	16	36	30	23
2297:	6	5	3	6	1	1	6	4
2305:	3	4	2	3	1	3	2	2
2313:	3	2	3	1	3	0	1	1
2321:	1	4	0	5	2	0	1	2
2329:	2	1	3	3	7	4	2	0
2337:	1	2	2	4	2	1	0	3
2345:	5	3	3	2	0	4	3	3

2353:	0	0	3	0	1	0	0	3
2361:	2	1	3	0	2	0	1	2
2369:	1	2	2	5	2	0	3	1
2377:	4	2	5	0	1	1	2	1
2385:	2	1	1	2	1	4	1	2
2393:	2	1	1	4	5	0	0	2
2401:	1	1	0	1	1	2	4	3
2409:	1	0	2	2	6	2	0	2
2417:	1	0	2	1	2	1	0	3
2425:	1	1	1	1	0	4	1	1
2433:	0	5	0	0	3	2	2	1
2441:	1	1	2	0	4	11	36	118
2449:	167	106	38	4	4	1	0	0
2457:	2	2	0	1	2	2	0	1
2465:	0	1	1	1	0	2	0	1
2473:	0	1	0	0	0	1	0	1
2481:	1	1	2	2	1	0	1	0
2489:	1	0	1	2	1	2	1	0
2497:	1	0	2	1	0	3	0	1
2505:	0	1	2	3	3	0	0	0
2513:	4	0	0	1	2	2	1	5
2521:	1	0	0	1	1	4	1	0
2529:	0	1	0	3	1	0	0	2
2537:	0	2	1	0	1	0	1	0
2545:	1	0	0	1	1	0	1	1
2553:	0	0	0	0	2	0	0	0
2561:	0	1	0	1	0	1	0	1
2569:	0	0	0	0	2	1	0	1
2577:	0	0	1	1	1	3	1	0
2585:	0	0	1	2	0	0	3	0
2593:	0	1	1	0	0	1	1	1
2601:	0	0	0	2	2	0	1	0
2609:	2	0	1	0	0	3	9	9
2617:	8	4	0	0	1	0	1	0
2625:	0	0	0	1	0	0	0	1
2633:	0	1	1	1	1	0	0	0
2641:	0	1	1	0	0	0	1	0
2649:	3	1	0	0	0	0	2	0
2657:	0	0	2	0	0	0	0	0
2665:	0	1	0	0	1	1	0	1
2673:	0	1	0	0	0	0	0	0
2681:	0	0	1	0	0	1	0	2
2689:	0	2	0	1	2	0	1	2
2697:	1	0	2	0	0	0	0	0
2705:	2	0	0	1	0	0	0	0
2713:	0	0	1	0	0	0	0	2
2721:	0	2	0	0	0	0	0	1
2729:	1	0	0	1	0	0	1	0
2737:	0	1	0	1	0	0	1	0
2745:	0	0	1	0	0	1	1	0
2753:	0	0	1	0	1	1	0	0
2761:	1	0	0	0	2	0	2	1
2769:	0	0	5	1	0	0	1	0
2777:	0	0	0	0	0	0	0	1
2785:	1	0	1	0	0	1	0	1
2793:	0	0	0	0	0	0	0	0
2801:	0	0	0	0	0	0	0	0
2809:	1	0	0	0	0	0	0	0
2817:	1	2	0	0	2	0	1	0
2825:	0	1	2	1	1	0	0	0

2833:	0	1	0	1	0	0	0	0	0
2841:	0	1	0	0	0	0	0	0	1
2849:	0	0	0	0	1	0	1	0	0
2857:	0	0	0	0	0	1	2	0	0
2865:	0	0	0	0	0	0	0	0	0
2873:	0	0	0	0	0	0	0	0	0
2881:	1	0	0	0	0	0	1	1	0
2889:	0	1	0	0	0	1	1	0	0
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2905:	1	1	0	0	0	0	0	0	0
2913:	0	0	1	0	1	1	0	0	0
2921:	0	0	1	1	1	0	0	0	0
2929:	0	0	0	1	2	0	0	0	0
2937:	0	0	0	2	2	0	0	0	1
2945:	0	0	0	0	0	0	0	0	0
2953:	1	0	0	1	0	0	0	0	0
2961:	0	0	1	0	0	0	0	0	0
2969:	0	0	0	0	0	0	0	0	1
2977:	0	1	0	3	0	0	1	0	0
2985:	0	0	1	0	0	0	0	0	0
2993:	1	0	0	0	0	0	1	0	0
3001:	3	1	2	0	0	1	0	0	0
3009:	0	0	0	0	0	2	0	0	2
3017:	0	0	0	0	0	0	0	0	1
3025:	0	0	0	0	0	0	1	0	0
3033:	0	0	0	0	0	0	1	0	0
3041:	0	0	0	1	1	0	0	0	0
3049:	0	0	0	0	1	2	2	4	0
3057:	1	1	0	0	0	0	1	0	0
3065:	0	0	1	0	0	1	0	0	0
3073:	0	1	0	0	0	0	0	1	0
3081:	0	2	0	0	0	0	1	0	0
3089:	0	0	0	0	0	0	1	0	0
3097:	0	0	0	0	0	0	0	0	0
3105:	1	0	0	0	0	0	0	0	0
3113:	0	0	0	1	0	0	0	0	0
3121:	0	0	0	0	0	0	0	0	0
3129:	0	0	0	0	0	0	0	0	0
3137:	0	0	0	0	0	0	0	0	1
3145:	0	0	0	2	0	0	0	0	1
3153:	0	0	0	0	0	0	0	0	0
3161:	0	0	0	0	0	0	1	0	0
3169:	0	1	0	0	0	1	0	0	0
3177:	0	0	1	0	1	0	0	0	0
3185:	0	0	0	0	1	0	0	0	1
3193:	0	1	0	0	0	1	1	0	0
3201:	0	0	0	1	1	0	0	0	0
3209:	0	0	0	0	0	0	0	0	0
3217:	0	1	1	0	0	0	0	0	0
3225:	0	0	0	0	0	0	0	0	1
3233:	1	0	0	0	0	0	0	0	0
3241:	0	0	0	0	0	0	0	0	1
3249:	0	0	0	0	0	0	0	0	0
3257:	0	0	0	0	0	1	0	0	0
3265:	0	0	0	1	0	0	0	0	0
3273:	0	0	1	0	0	0	0	0	0
3281:	0	0	0	1	0	0	0	0	1
3289:	0	0	0	1	0	0	0	0	0
3297:	0	0	0	0	0	0	0	0	0
3305:	0	1	0	0	0	0	0	0	0

3313:	0	0	1	0	0	1	0	0
3321:	0	0	0	0	0	0	0	1
3329:	0	1	0	0	0	0	0	1
3337:	1	1	0	0	0	1	0	1
3345:	0	0	0	0	0	0	1	0
3353:	1	0	0	0	0	0	0	0
3361:	0	1	0	0	0	1	0	0
3369:	0	0	1	0	0	1	0	0
3377:	1	0	0	0	0	0	0	0
3385:	0	0	0	0	0	1	1	0
3393:	0	1	0	0	0	0	0	0
3401:	0	0	0	0	0	0	0	0
3409:	0	0	0	0	0	0	0	0
3417:	1	0	1	0	0	0	0	0
3425:	0	0	0	0	0	0	0	0
3433:	2	0	0	0	1	1	0	0
3441:	0	0	0	0	0	0	0	0
3449:	0	1	0	0	0	0	0	0
3457:	0	0	0	0	0	0	0	0
3465:	0	0	0	0	1	0	0	0
3473:	0	0	0	0	0	0	0	0
3481:	1	0	1	0	0	0	0	0
3489:	0	0	1	0	0	0	0	0
3497:	0	0	0	0	0	0	0	0
3505:	0	0	0	0	0	0	0	0
3513:	1	0	0	0	0	0	0	0
3521:	0	0	0	1	0	0	0	1
3529:	0	0	2	0	0	0	1	0
3537:	0	0	0	1	0	1	1	0
3545:	1	1	0	0	0	0	0	0
3553:	0	0	0	0	0	0	0	0
3561:	0	0	0	0	0	0	0	0
3569:	0	0	0	1	0	1	0	0
3577:	1	0	0	0	0	0	0	0
3585:	0	0	0	0	0	0	0	0
3593:	0	0	0	0	0	0	0	0
3601:	0	0	0	0	0	0	0	0
3609:	0	1	2	0	0	0	0	0
3617:	0	0	0	0	0	0	0	0
3625:	0	0	0	0	0	2	0	1
3633:	0	0	0	0	0	0	0	0
3641:	0	2	0	0	0	0	0	0
3649:	1	0	0	0	0	0	0	0
3657:	0	0	0	0	0	0	0	0
3665:	0	0	0	0	0	0	0	0
3673:	0	0	0	0	0	1	0	0
3681:	0	0	0	0	0	0	0	0
3689:	1	0	0	0	2	0	0	0
3697:	0	0	0	0	0	0	0	0
3705:	0	0	0	0	0	0	0	0
3713:	0	0	0	0	0	0	0	0
3721:	0	0	0	0	0	0	0	0
3729:	0	0	1	0	0	0	1	0
3737:	0	0	0	0	0	0	0	0
3745:	0	0	0	0	0	0	0	0
3753:	0	1	0	0	0	0	0	0
3761:	0	0	0	0	0	0	1	1
3769:	0	0	0	0	0	0	0	0
3777:	1	0	0	0	1	0	0	0
3785:	0	1	0	0	0	0	0	0

3793:	0	0	0	1	0	0	0	0
3801:	0	0	0	0	0	0	0	0
3809:	0	0	0	1	0	0	0	0
3817:	0	0	0	1	0	0	0	1
3825:	0	1	1	0	0	0	0	0
3833:	0	0	0	0	2	0	0	0
3841:	0	0	0	0	0	0	0	0
3849:	0	0	0	0	0	0	0	0
3857:	0	0	0	1	0	0	0	0
3865:	0	0	0	0	0	0	0	0
3873:	0	0	0	0	0	0	0	0
3881:	0	0	0	0	0	0	0	0
3889:	0	0	0	0	0	0	0	0
3897:	1	0	0	0	0	0	0	1
3905:	0	0	0	0	0	1	0	0
3913:	0	0	0	1	0	0	0	0
3921:	0	0	0	1	0	0	0	0
3929:	0	0	0	0	0	0	0	0
3937:	0	0	0	0	0	1	0	0
3945:	0	0	0	0	0	0	0	0
3953:	0	0	0	0	0	1	0	0
3961:	0	0	0	0	1	0	0	0
3969:	1	0	0	0	0	0	0	0
3977:	0	0	0	0	0	0	0	0
3985:	0	0	0	0	0	0	2	0
3993:	0	0	0	0	0	0	0	0
4001:	0	0	0	0	0	1	0	0
4009:	0	1	0	0	0	0	0	0
4017:	0	0	0	0	0	0	0	0
4025:	0	0	0	0	0	1	0	0
4033:	0	0	0	0	0	0	0	0
4041:	0	0	0	0	1	0	0	0
4049:	0	0	0	0	0	0	0	0
4057:	0	0	0	0	0	0	0	0
4065:	0	0	0	1	0	1	0	0
4073:	0	0	0	0	0	0	0	0
4081:	0	0	0	0	0	0	0	0
4089:	0	0	1	0	0	0	0	0

Sample ID : 1111068-14

Acquisition date : 11-DEC-2011 16:16:10

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12/11/11

VAX/VMS Peak Search Report Generated 11-DEC-2011 17:17:06.82

Configuration : DKA100:[GAMMA.SCUSR.ARCHIVE]SMP_111106814_GE4_GAS1102_172298.
 Analyses by : PEAK V16.9 ENBACK V1.6 PEAKEFF V2.2
 Client ID : S12-35-31-111107
 Deposition Date :
 Sample Date : 7-NOV-2011 00:00:00. Acquisition date : 11-DEC-2011 16:16:10
 Sample ID : 1111068-14 Sample Quantity : 4.91580E+02 GRAM
 Sample type : SOIL Sample Geometry : 0
 Detector name : GE4 Detector Geometry: GAS-1102
 Elapsed live time: 0 01:00:00.00 Elapsed real time: 0 01:00:44.56 1.2%
 Start channel : 5 End channel : 4096
 Sensitivity : 2.40000 Gaussian : 15.00000
 Critical level : Yes

Post-NID Peak Search Report

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides
0	26.19	762	15084	4.52	25.52	23	7	54.0		TH-231
0	31.76	305	11056	2.36	31.09	30	5	104.0		
0	46.60*	5121	16766	1.68	45.94	44	5	8.1		PB-210
0	53.11	1136	28683	1.65	52.46	50	7	49.7		
0	63.37*	9661	31637	1.93	62.72	60	6	6.2		TH-234
0	76.47*	46101	63885	3.82	75.83	70	12	2.4		
6	84.12	2721	9814	1.46	83.49	82	15	9.0	8.65E+01	TH-231
6	87.69	11477	44090	3.19	87.06	82	15	7.1		NP-237 SN-126 CD-109
6	92.81*	16084	25762	2.39	92.18	82	15	3.8		
0	98.63	817	17998	1.50	98.01	97	6	52.6		
0	112.48	1762	26187	4.71	111.87	108	9	33.5		
0	143.90*	1944	22862	2.14	143.31	140	8	27.3		U-235
0	154.56	1119	19825	2.17	153.98	151	7	42.2		
0	163.42*	770	14998	2.37	162.85	161	6	50.9		U-235
0	186.20*	14990	22343	2.10	185.65	181	10	4.1		RA-226
0	205.70	549	11185	2.31	205.15	203	6	61.8		U-235
3	236.57	1337	13139	2.85	236.05	232	15	31.3	5.69E-01	
3	242.22*	12039	8248	1.92	241.71	232	15	3.0		RA-224
0	257.71	1714	11629	4.12	257.20	253	10	24.1		
4	270.45	2029	9865	3.08	269.95	264	14	18.2	1.38E+00	
4	274.80	631	6548	1.94	274.31	264	14	42.2		
0	295.46	25290	8886	1.96	294.98	290	9	1.8		PB-214
0	323.25	221	4972	1.66	322.79	321	6	101.7		RA-223
0	329.95	341	5687	1.68	329.49	327	7	74.1		
0	352.15*	41106	6565	2.13	351.72	347	9	1.2		PB-214
0	387.91	747	6193	3.93	387.50	383	10	40.1		
0	406.02	276	4694	1.50	405.62	403	7	83.7		PB-211
0	445.63	153	2645	3.71	445.26	443	6	107.4		
0	454.67	165	2693	2.22	454.30	452	6	101.2		
0	462.41	207	2953	2.05	462.05	459	7	88.5		
0	480.15	278	2658	1.83	479.80	477	7	62.6		
0	487.49	353	2547	2.06	487.15	484	7	48.7		
0	510.62*	447	2894	2.85	510.29	507	9	44.5		
0	573.39	125	1926	2.96	573.11	570	7	118.4		

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12/11/11

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides
0	580.36	163	2018	1.38	580.09	577	7	92.5		
0	609.57*	29012	2966	2.21	609.32	603	12	1.4		BI-214
0	634.51	128	1328	4.45	634.28	631	7	96.1		
0	665.59	892	2338	2.28	665.38	658	12	22.7		
0	703.49	241	1330	2.50	703.31	700	7	51.8		
0	719.31*	355	1956	2.99	719.14	714	11	49.4		
0	742.90	367	1641	3.06	742.74	738	10	42.6		
0	754.01	102	978	1.78	753.86	751	6	99.8		
0	768.45	2855	1844	2.39	768.31	762	11	6.9		
0	786.37	554	1729	2.29	786.25	782	10	29.4		
0	806.44	576	1418	2.32	806.33	802	8	24.2		
0	821.26	110	1033	2.52	821.16	819	6	94.6		
1	832.93	142	1058	2.65	832.84	830	14	73.2	2.02E+00	PB-211
1	839.33	346	1355	2.65	839.24	830	14	38.8		
0	877.01	102	1021	1.34	876.95	874		6101.0		
0	934.28	1366	1478	2.30	934.27	929	10	11.8		
0	965.26	139	1134	2.50	965.27	961	8	85.7		
0	1001.10	436	1246	2.15	1001.13	997	10	31.8		PA-234M
0	1015.87	121	852	4.57	1015.92	1013	8	85.4		
0	1052.50	108	772	2.43	1052.56	1049	7	87.1		
0	1069.74	234	934	1.39	1069.82	1065	10	50.6		
0	1120.63	5416	1024	2.38	1120.75	1116	10	3.5		BI-214
0	1134.06	161	799	2.59	1134.19	1130	9	65.5		
0	1155.47	520	911	2.28	1155.61	1151	9	22.7		
0	1181.58	246	780	3.44	1181.74	1177	10	44.5		
0	1207.68	121	559	1.55	1207.86	1205	7	67.6		
0	1238.43*	2026	927	2.51	1238.63	1233	12	7.5		
0	1253.52	140	631	4.03	1253.73	1250	8	64.4		
0	1281.26	526	1032	2.60	1281.49	1274	14	27.3		
0	1378.03	1265	773	2.48	1378.34	1374	10	10.0		
0	1385.86	259	487	2.15	1386.17	1383	7	30.9		
2	1401.75	419	564	2.67	1402.07	1396	18	21.9	1.29E+00	
2	1408.24	736	494	2.45	1408.57	1396	18	12.4		
0	1461.48	416	858	2.42	1461.84	1457	12	29.8		K-40
0	1484.21	72	443	3.66	1484.59	1482		7100.4		
0	1509.46	669	940	2.42	1509.86	1505	12	19.9		
2	1538.94	176	591	2.88	1539.35	1532	17	52.8	1.34E+00	
2	1543.62	138	552	3.04	1544.04	1532	17	67.1		
0	1583.48	247	670	2.22	1583.93	1578	13	45.0		
0	1599.32	63	436	2.50	1599.78	1596		8118.8		
0	1661.43	358	335	2.35	1661.94	1655	13	23.6		
0	1684.26	41	166	1.98	1684.79	1682		7108.8		
0	1693.25	134	230	3.69	1693.78	1689	10	45.6		
0	1730.03	826	268	2.58	1730.58	1725	13	10.7		
0	1764.88	4105	223	2.65	1765.46	1759	12	3.4		BI-214
0	1838.41	57	160	2.06	1839.05	1835	8	80.8		
0	1847.85	501	208	2.54	1848.49	1844	11	14.3		
0	1893.28	66	249	1.26	1893.95	1887		14104.6		
0	1935.81	69	162	1.80	1936.51	1932	10	72.3		
0	1964.04	34	111	1.68	1964.76	1962		8113.8		
0	2032.59	34	64	3.73	2033.36	2030	8	89.9		

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides
0	2119.01	240	85	2.46	2119.85	2115	12	20.0		
0	2161.96	38	25	6.55	2162.82	2158	11	60.5		
0	2204.50	1052	51	2.80	2205.40	2198	12	6.7		BI-214
0	2243.05	15	18	4.51	2243.98	2239	10	114.5		
0	2293.07	63	21	2.60	2294.04	2287	14	39.7		
0	2338.09	11	3	3.74	2339.09	2336	7	79.5		
0	2448.11	316	0	2.81	2449.18	2443	12	11.3		
0	2617.30	13	6	3.55	2618.50	2610	12	96.3		
0	2695.94	12	3	1.84	2697.19	2692	11	78.3		

Total number of lines in spectrum 94
 Number of unidentified lines 57
 Number of lines tentatively identified by NID 37 39.36%

Nuclide Type : NATURAL

Nuclide	Hlife	Decay	Wtd Mean		Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
			Uncorrected pCi/GRAM	Decay Corr pCi/GRAM			
K-40	1.28E+09Y	1.00	3.311E+01	3.311E+01	1.043E+01	31.49	
PB-210	22.26Y	1.00	1.372E+02	1.376E+02	0.169E+02	12.26	
PB-211	3.28E+04Y	1.00	2.462E+01	2.462E+01	1.377E+01	55.91	
BI-214	1602.00Y	1.00	2.413E+02	2.413E+02	0.138E+02	5.73	
PB-214	1602.00Y	1.00	2.398E+02	2.398E+02	0.195E+02	8.13	
RA-223	3.28E+04Y	1.00	1.137E+01	1.137E+01	1.163E+01	102.30	
RA-224	1.41E+10Y	1.00	4.638E+02	4.638E+02	0.488E+02	10.51	
RA-226	1602.00Y	1.00	5.679E+02	5.680E+02	10.41E+02	183.23	
PA-234M	4.47E+09Y	1.00	2.932E+02	2.932E+02	1.010E+02	34.45	
TH-234	4.47E+09Y	1.00	2.369E+02	2.369E+02	0.250E+02	10.56	
U-235	7.04E+08Y	1.00	1.847E+01	1.847E+01	0.478E+01	25.87	
Total Activity :			2.268E+03	2.268E+03			

Nuclide Type : FISSION

Nuclide	Hlife	Decay	Wtd Mean		Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
			Uncorrected pCi/GRAM	Decay Corr pCi/GRAM			
CD-109	464.00D	1.05	2.784E+02	2.932E+02	0.418E+02	14.26	
SN-126	1.00E+05Y	1.00	2.798E+01	2.798E+01	0.362E+01	12.94	
TH-231	7.04E+08Y	1.00	1.125E+01	1.125E+01	0.637E+01	56.65	
NP-237	2.14E+06Y	1.00	8.208E+01	8.208E+01	1.053E+01	12.84	
Total Activity :			3.997E+02	4.145E+02			

Grand Total Activity : 2.667E+03 2.683E+03

Flags: "K" = Keyline not found
 "E" = Manually edited

"M" = Manually accepted
 "A" = Nuclide specific abn. limit

Nuclide Type: NATURAL

Nuclide	Energy	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error	Status
K-40	1460.81	10.67*	1.798E-01	3.311E+01	3.311E+01	31.49	OK
Final Mean for 1 Valid Peaks = 3.311E+01+/- 1.043E+01 (31.49%)							
PB-210	46.50	4.05*	1.407E+00	1.372E+02	1.376E+02	12.26	OK
Final Mean for 1 Valid Peaks = 1.376E+02+/- 1.688E+01 (12.26%)							
PB-211	404.84	2.90*	6.142E-01	2.365E+01	2.365E+01	84.80	OK
	831.96	2.90	2.942E-01	2.549E+01	2.549E+01	74.27	OK
Final Mean for 2 Valid Peaks = 2.462E+01+/- 1.377E+01 (55.91%)							
BI-214	609.31	46.30*	4.029E-01	2.375E+02	2.375E+02	11.63	OK
	1120.29	15.10	2.230E-01	2.457E+02	2.457E+02	12.34	OK
	1764.49	15.80	1.582E-01	2.509E+02	2.509E+02	10.14	OK
	2204.22	4.98	1.404E-01	2.298E+02	2.299E+02	12.13	OK
Final Mean for 4 Valid Peaks = 2.413E+02+/- 1.382E+01 (5.73%)							
PB-214	295.21	19.19	8.368E-01	2.405E+02	2.405E+02	10.77	OK
	351.92	37.19*	7.067E-01	2.389E+02	2.389E+02	12.40	OK
Final Mean for 2 Valid Peaks = 2.398E+02+/- 1.950E+01 (8.13%)							
RA-223	323.87	3.88*	7.663E-01	1.137E+01	1.137E+01	102.30	OK
Final Mean for 1 Valid Peaks = 1.137E+01+/- 1.163E+01 (102.30%)							
RA-224	240.98	3.95*	1.004E+00	4.638E+02	4.638E+02	10.51	OK
Final Mean for 1 Valid Peaks = 4.638E+02+/- 4.877E+01 (10.51%)							
RA-226	186.21	3.28*	1.229E+00	5.679E+02	5.680E+02	183.23	OK
Final Mean for 1 Valid Peaks = 5.680E+02+/- 1.041E+03 (183.23%)							
PA-234M	1001.03	0.92*	2.467E-01	2.932E+02	2.932E+02	34.45	OK
Final Mean for 1 Valid Peaks = 2.932E+02+/- 1.010E+02 (34.45%)							
TH-234	63.29	3.80*	1.639E+00	2.369E+02	2.369E+02	10.56	OK
Final Mean for 1 Valid Peaks = 2.369E+02+/- 2.502E+01 (10.56%)							
U-235	143.76	10.50*	1.445E+00	1.957E+01	1.957E+01	32.79	OK
	163.35	4.70	1.342E+00	1.864E+01	1.864E+01	54.46	OK
	205.31	4.70	1.143E+00	1.559E+01	1.559E+01	64.84	OK
Final Mean for 3 Valid Peaks = 1.847E+01+/- 4.779E+00 (25.87%)							

Nuclide Type: FISSION

Nuclide	Energy	%Abn	%Eff	Uncorrected Decay Corr		2-Sigma %Error	Status
				pCi/GRAM	pCi/GRAM		
CD-109	88.03	3.72*	1.693E+00	2.784E+02	2.932E+02	14.26	OK
Final Mean for 1 Valid Peaks = 2.932E+02+/- 4.182E+01 (14.26%)							
SN-126	87.57	37.00*	1.693E+00	2.798E+01	2.798E+01	12.94	OK
Final Mean for 1 Valid Peaks = 2.798E+01+/- 3.619E+00 (12.94%)							
TH-231	25.64 84.21	14.70* 6.40	7.033E-01 1.697E+00	1.125E+01 3.825E+01	1.125E+01 3.825E+01	56.65 13.84	OK <<WM N-Sigma
Final Mean for 1 Valid Peaks = 1.125E+01+/- 6.374E+00 (56.65%)							
NP-237	86.50	12.60*	1.695E+00	8.208E+01	8.208E+01	12.84	OK
Final Mean for 1 Valid Peaks = 8.208E+01+/- 1.053E+01 (12.84%)							

Flag: "*" = Keyline

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.311E+01	1.043E+01	9.072E+00	8.528E-01	3.650
CD-109	2.932E+02	4.182E+01	1.933E+01	2.269E+00	15.166
SN-126	2.798E+01	3.619E+00	1.844E+00	1.859E-01	15.168
PB-210	1.376E+02	1.688E+01	1.677E+01	1.396E+00	8.209
PB-211	2.462E+01	1.377E+01	2.727E+01	3.566E+00	0.903
BI-214	2.413E+02	1.382E+01	1.629E+00	1.764E-01	148.099
PB-214	2.398E+02	1.950E+01	1.903E+00	2.221E-01	126.028
RA-223	1.137E+01	1.163E+01	1.774E+01	1.907E+00	0.641
RA-224	4.638E+02	4.877E+01	1.714E+01	1.584E+00	27.060
RA-226	5.680E+02	1.041E+03	2.103E+01	3.852E+01	27.006
TH-231	1.125E+01	6.374E+00	8.022E+00	1.336E+00	1.403
PA-234M	2.932E+02	1.010E+02	9.879E+01	1.242E+01	2.968
TH-234	2.369E+02	2.502E+01	2.033E+01	1.542E+00	11.654
U-235	1.847E+01	4.779E+00	6.305E+00	1.113E+00	2.930
NP-237	8.208E+01	1.053E+01	5.410E+00	5.384E-01	15.172

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	4.794E+00		7.789E+00	1.123E+01	1.456E+00	0.427
NA-22	-1.648E-01		6.139E-01	9.100E-01	8.772E-02	-0.181
AL-26	2.132E-02		3.211E-01	5.564E-01	4.744E-02	0.038
TI-44	8.692E-01		7.166E-01	8.377E-01	6.685E-02	1.038
SC-46	-1.192E-01		7.471E-01	1.273E+00	1.675E-01	-0.094
V-48	3.181E-01		2.413E+00	4.133E+00	5.262E-01	0.077
CR-51	-5.539E+00		1.165E+01	1.664E+01	1.831E+00	-0.333
MN-54	7.471E-01		5.857E-01	1.011E+00	1.234E-01	0.739
CO-56	-2.291E-01		8.097E-01	1.213E+00	1.507E-01	-0.189
CO-57	2.169E-01		5.289E-01	7.756E-01	7.148E-02	0.280
CO-58	1.104E+00		8.264E-01	1.273E+00	1.503E-01	0.867
FE-59	3.538E-01		1.610E+00	2.760E+00	3.303E-01	0.128
CO-60	-3.097E-01		6.089E-01	8.959E-01	9.228E-02	-0.346
ZN-65	7.011E+00		1.683E+00	2.485E+00	2.784E-01	2.822
SE-75	-2.595E-01		1.187E+00	1.343E+00	1.259E-01	-0.193
RB-82	5.186E+00		1.426E+01	1.601E+01	1.793E+00	0.324
RB-83	1.204E+00		1.435E+00	2.062E+00	3.733E-01	0.584
KR-85	1.431E+02		1.198E+02	1.732E+02	2.189E+01	0.826
SR-85	9.009E-01		7.545E-01	1.090E+00	1.378E-01	0.826
Y-88	6.983E-01		5.545E-01	8.968E-01	7.569E-02	0.779
NB-93M	2.676E+02		1.114E+02	2.815E+01	1.156E+01	9.505
NB-94	-1.813E-01		6.063E-01	9.072E-01	1.165E-01	-0.200
NB-95	2.150E+01		2.833E+00	2.645E+00	2.915E-01	8.126
ZR-95	3.862E-01		1.846E+00	2.061E+00	2.384E-01	0.187
RU-103	6.455E-01		9.577E-01	1.472E+00	2.509E-01	0.439
RU-106	-2.636E+00		4.870E+00	7.697E+00	1.126E+00	-0.343
AG-108M	1.068E+00		5.898E-01	9.154E-01	9.412E-02	1.167
AG-110M	-1.160E-01		5.654E-01	8.561E-01	8.028E-02	-0.136

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SN-113	1.095E+00		9.930E-01	1.432E+00	1.890E-01	0.765
TE123M	3.830E-01		8.572E-01	9.883E-01	8.571E-02	0.388
SB-124	8.147E-01		8.215E-01	1.189E+00	1.307E-01	0.685
I-125	-3.871E+01		1.285E+01	1.749E+01	1.860E+00	-2.213
SB-125	2.112E+00		1.726E+00	2.779E+00	3.677E-01	0.760
SB-126	2.064E+01	+	1.045E+01	1.087E+01	1.113E+00	1.900
I-129	1.999E+00		1.382E+00	1.626E+00	2.155E-01	1.230
I-131	6.358E+00		1.040E+01	1.686E+01	2.039E+00	0.377
BA-133	4.254E+01		6.888E+00	2.149E+00	3.325E-01	19.798
CS-134	9.040E+00		1.257E+00	1.200E+00	1.316E-01	7.530
CS-135	1.641E+01		3.411E+00	4.562E+00	4.253E-01	3.598
CS-136	1.898E+00		4.682E+00	7.121E+00	8.738E-01	0.267
CS-137	1.712E+00		5.469E-01	9.397E-01	8.703E-02	1.822
LA-138	-9.939E-02		8.583E-01	1.452E+00	1.333E-01	-0.068
CE-139	1.733E+00		7.036E-01	1.016E+00	8.687E-02	1.706
BA-140	3.987E+00		1.224E+01	1.963E+01	6.732E+00	0.203
LA-140	6.442E+00		5.045E+00	6.776E+00	6.118E-01	0.951
CE-141	6.058E+00		2.731E+00	3.009E+00	7.870E-01	2.013
CE-144	8.367E-01		3.893E+00	6.377E+00	5.772E-01	0.131
PM-144	-2.458E-01		5.335E-01	8.003E-01	7.879E-02	-0.307
PM-145	-8.470E+00		6.025E+00	3.407E+00	2.226E+00	-2.486
PM-146	1.165E+00	+	1.190E+00	1.896E+00	2.481E-01	0.614
ND-147	1.066E+01		3.129E+01	5.048E+01	6.267E+00	0.211
EU-152	4.090E+01	+	7.087E+00	9.439E+00	1.073E+00	4.333
GD-153	1.134E+00		2.464E+00	2.864E+00	2.766E-01	0.396
EU-154	-4.695E-01		1.697E+00	2.515E+00	2.425E-01	-0.187
EU-155	3.392E+01	+	4.353E+00	2.689E+00	2.676E-01	12.612
EU-156	1.326E+00		2.854E+01	4.035E+01	9.776E+00	0.033
HO-166M	1.547E-01		1.283E+00	1.429E+00	1.442E-01	0.108
HF-172	-1.672E+00		3.445E+00	5.621E+00	5.147E-01	-0.297
LU-172	5.305E+00		3.069E+01	5.257E+01	6.048E+00	0.101
LU-173	1.877E+01		3.087E+00	3.798E+00	3.542E-01	4.942
HF-175	-6.582E-01		8.545E-01	1.210E+00	1.379E-01	-0.544
LU-176	-3.694E-01		4.520E-01	7.230E-01	7.371E-02	-0.511
TA-182	1.313E+02	+	1.617E+01	8.908E+00	9.901E-01	14.735
IR-192	-4.771E-01		1.451E+00	2.060E+00	2.684E-01	-0.232
HG-203	-1.159E+00		1.051E+00	1.488E+00	1.421E-01	-0.779
BI-207	-1.004E-01		5.385E-01	7.637E-01	8.971E-02	-0.131
TL-208	2.562E+00		1.819E+00	2.634E+00	3.018E-01	0.973
BI-210M	1.860E+00		1.304E+00	1.504E+00	1.401E-01	1.237
BI-212	-2.269E+00		4.384E+00	6.558E+00	6.790E-01	-0.346
PB-212	1.822E+01		2.113E+00	1.899E+00	1.753E-01	9.592
RN-219	1.234E+01		8.584E+00	1.233E+01	1.610E+00	1.001
RA-225	-1.312E+01		1.010E+01	1.157E+01	1.089E+00	-1.134
TH-227	1.738E+01	+	5.708E+00	6.300E+00	5.806E-01	2.759
AC-228	6.500E-01		2.025E+00	3.477E+00	4.606E-01	0.187
TH-230	2.877E+02		1.836E+02	2.145E+02	1.707E+01	1.342
PA-231	4.442E+01		2.101E+01	3.031E+01	3.050E+00	1.466

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PA-233	-2.002E+00		2.699E+00	4.269E+00	9.896E-01	-0.469
PA-234	3.140E-01		1.881E+00	3.081E+00	2.799E-01	0.102
AM-241	6.440E+00		1.882E+00	2.170E+00	1.583E-01	2.968
AM-243	4.752E+01		4.618E+00	1.666E+00	1.438E-01	28.519
CM-243	2.006E+00		3.452E+00	5.008E+00	4.671E-01	0.400

Total number of lines in spectrum 94
 Number of unidentified lines 57
 Number of lines tentatively identified by NID 37 39.36%

Nuclide Type : NATURAL

Nuclide	Hlife	Decay	Wtd Mean		Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
			Uncorrected pCi/GRAM	Decay Corr pCi/GRAM			
K-40	1.28E+09Y	1.00	3.311E+01	3.311E+01	1.043E+01	31.49	
PB-210	22.26Y	1.00	1.372E+02	1.376E+02	0.169E+02	12.26	
PB-211	3.28E+04Y	1.00	2.462E+01	2.462E+01	1.377E+01	55.91	
BI-214	1602.00Y	1.00	2.413E+02	2.413E+02	0.138E+02	5.73	
PB-214	1602.00Y	1.00	2.398E+02	2.398E+02	0.195E+02	8.13	
RA-223	3.28E+04Y	1.00	1.137E+01	1.137E+01	1.163E+01	102.30	
RA-224	1.41E+10Y	1.00	4.638E+02	4.638E+02	0.488E+02	10.51	
RA-226	1602.00Y	1.00	5.679E+02	5.680E+02	10.41E+02	183.23	
PA-234M	4.47E+09Y	1.00	2.932E+02	2.932E+02	1.010E+02	34.45	
TH-234	4.47E+09Y	1.00	2.369E+02	2.369E+02	0.250E+02	10.56	
U-235	7.04E+08Y	1.00	1.847E+01	1.847E+01	0.478E+01	25.87	
Total Activity :			2.268E+03	2.268E+03			

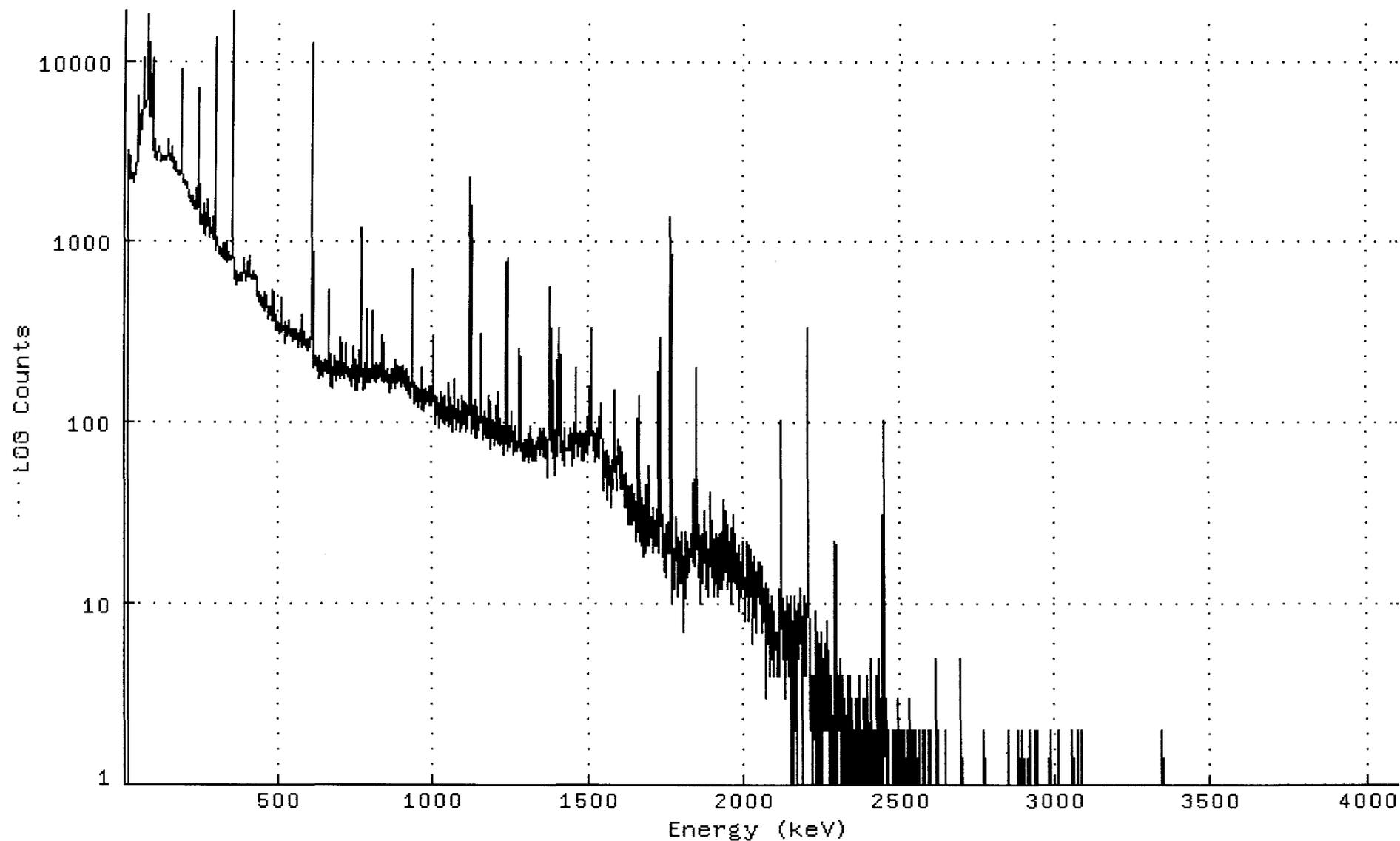
Nuclide Type : FISSION

Nuclide	Hlife	Decay	Wtd Mean		Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
			Uncorrected pCi/GRAM	Decay Corr pCi/GRAM			
CD-109	464.00D	1.05	2.784E+02	2.932E+02	0.418E+02	14.26	
SN-126	1.00E+05Y	1.00	2.798E+01	2.798E+01	0.362E+01	12.94	
TH-231	7.04E+08Y	1.00	1.125E+01	1.125E+01	0.637E+01	56.65	
NP-237	2.14E+06Y	1.00	8.208E+01	8.208E+01	1.053E+01	12.84	
Total Activity :			3.997E+02	4.145E+02			

Grand Total Activity : 2.667E+03 2.683E+03

Flags: "K" = Keyline not found "M" = Manually accepted
 "E" = Manually edited "A" = Nuclide specific abn. limit

Spectrum : DKA100:[GAMMA,SCUSR,ARCHIVE]SMP_111106814_GE4_GAS1102_172298.CNF;1
Title :
Sample Title: S12-35-31-111107
Start Time: 11-DEC-2011 16:16 Sample Time: 7-NOV-2011 00:00: Energy Offset: 6.91748E-01
Real Time : 0 01:00:44.56 Sample ID : 1111068-14 Energy Slope : 9.99279E-01
Live Time : 0 01:00:00.00 Sample Type: SOIL Energy Quad : 0.00000E+00



Channel Contents for DKA100: [GAMMA.SCUSR.ARCHIVE] SMP_111106814_GE4_GAS1102_1722

Channel

1:	0	0	0	0	0	0	0	0
9:	0	0	0	0	0	9	1965	3172
17:	2700	2589	2546	2323	2203	2174	2190	2380
25:	2328	2303	2289	2256	2100	2170	2360	2330
33:	2323	2178	2346	2456	2393	2438	2529	2615
41:	2706	2779	3009	3200	4393	6281	4680	3369
49:	3677	3910	3793	4405	4944	4442	4091	4234
57:	4432	4684	5040	5274	5666	8136	10077	6892
65:	5281	5438	5855	5900	5619	5620	5768	6080
73:	7639	12832	13113	16024	17629	8566	5766	5675
81:	5297	4838	6138	6056	4889	6722	8140	5848
89:	5524	5138	6424	10274	7944	4552	3694	3166
97:	3337	3624	3218	2863	2883	2890	2780	2912
105:	2962	2906	2905	2974	3131	3178	3136	3300
113:	3205	3043	3029	2953	2819	2733	2885	2773
121:	2862	2861	2815	2912	2795	2855	2757	2850
129:	2882	2932	2836	2871	2804	2801	2855	2886
137:	2798	2831	2895	2918	2966	3100	3542	3649
145:	2987	2875	2778	2863	2983	2923	2900	2933
153:	3095	3306	3067	2922	2721	2826	2591	2485
161:	2528	2755	2823	2660	2520	2486	2504	2477
169:	2387	2383	2439	2287	2354	2277	2362	2327
177:	2382	2329	2310	2358	2327	2434	2431	3325
185:	7242	8735	4124	2349	2234	2157	2134	2127
193:	2098	2130	2167	2129	2072	2125	2097	2032
201:	2101	2012	2008	2027	2092	2002	1809	1796
209:	1735	1760	1808	1754	1738	1784	1667	1662
217:	1728	1671	1672	1748	1653	1563	1636	1679
225:	1605	1580	1647	1560	1580	1488	1509	1504
233:	1516	1570	1778	1925	1757	1531	1516	2067
241:	5465	6881	3024	1390	1349	1330	1289	1302
249:	1247	1303	1276	1225	1223	1276	1361	1474
257:	1491	1588	1542	1188	1094	1106	1124	1080
265:	1154	1114	1105	1274	1619	1672	1558	1288
273:	1212	1389	1285	1158	1044	1132	1053	1085
281:	1090	1133	1158	1123	1169	1102	1069	1093
289:	1046	1030	1021	1082	1670	6952	13138	6908
297:	1487	888	976	1051	938	1007	941	939
305:	924	935	852	862	840	869	855	824
313:	864	882	877	907	814	860	810	807
321:	862	821	971	935	792	812	837	843
329:	941	992	773	819	823	784	870	830
337:	823	846	871	779	833	811	781	787
345:	814	817	785	807	961	3145	14273	18964
353:	7093	1019	634	676	676	640	622	626
361:	568	622	659	659	671	678	637	623
369:	646	606	618	653	658	661	643	616
377:	607	625	622	621	628	602	625	657
385:	655	727	797	758	751	690	662	618
393:	630	604	659	610	629	658	636	679
401:	747	766	723	733	827	731	685	643
409:	628	610	622	627	632	640	636	685
417:	641	616	640	638	652	635	631	632
425:	620	647	649	611	578	597	586	547

433:	502	525	481	501	491	497	459	488
441:	458	445	446	498	464	483	475	432
449:	443	449	467	480	459	524	511	470
457:	414	450	429	463	461	502	463	428
465:	414	404	373	422	433	405	417	420
473:	417	432	425	386	382	409	412	529
481:	480	363	361	392	374	412	515	478
489:	369	360	349	358	377	395	326	356
497:	345	359	358	326	325	318	346	321
505:	321	320	309	366	396	473	480	401
513:	312	334	326	328	319	331	328	355
521:	308	310	331	335	272	315	314	319
529:	327	324	325	330	349	367	327	335
537:	367	309	299	317	307	312	325	314
545:	308	314	319	316	288	282	318	301
553:	321	317	288	322	319	313	290	304
561:	311	289	295	310	272	276	289	260
569:	293	288	304	292	323	280	301	263
577:	265	278	308	390	324	316	300	315
585:	264	281	278	260	278	282	284	289
593:	259	247	283	262	268	248	270	291
601:	281	260	286	287	274	294	634	4531
609:	12414	10171	2355	325	218	200	239	232
617:	229	199	207	222	204	233	220	208
625:	206	227	193	217	190	217	175	230
633:	214	221	224	211	181	189	198	212
641:	187	211	201	208	178	208	183	189
649:	221	189	222	198	202	191	184	189
657:	200	217	217	190	198	185	218	311
665:	521	533	272	209	159	204	178	189
673:	177	178	164	155	198	188	191	182
681:	187	201	231	196	184	175	209	177
689:	183	170	214	217	180	189	183	181
697:	199	184	182	193	175	238	294	261
705:	230	180	204	216	212	189	197	183
713:	173	173	203	207	196	187	252	274
721:	258	206	181	178	186	190	181	198
729:	169	178	191	193	189	190	198	163
737:	159	179	158	197	212	254	260	218
745:	175	185	170	150	161	190	165	172
753:	221	195	171	156	150	179	154	174
761:	185	167	186	169	204	302	563	1170
769:	1155	433	201	149	168	163	176	194
777:	166	155	207	163	186	166	168	191
785:	306	415	316	200	164	184	173	168
793:	170	195	165	186	182	164	163	183
801:	164	197	174	171	265	411	361	241
809:	174	175	198	167	167	183	164	198
817:	179	164	174	208	200	192	192	177
825:	172	188	188	191	178	182	186	192
833:	232	191	181	169	204	247	299	245
841:	200	213	165	163	181	186	182	171
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857:	163	164	181	163	179	181	146	193
865:	183	180	170	153	167	192	177	164
873:	182	167	194	187	218	176	181	153
881:	205	203	206	184	186	192	165	192
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897:	172	200	175	201	165	201	203	196
905:	173	188	165	159	160	189	177	189

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929:	137	163	143	188	371	694	599	243
937:	167	139	157	128	154	160	165	149
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993:	130	148	124	130	126	154	129	177
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1097:	129	98	97	116	124	106	99	105
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1153:	121	154	284	311	171	108	90	106
1161:	106	82	106	80	115	102	86	96
1169:	113	91	83	91	93	93	104	84
1177:	82	106	85	103	125	139	124	101
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1241:	102	93	89	69	74	75	80	92
1249:	94	75	91	107	115	113	115	88
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1353:	81	76	74	73	92	65	78	85
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1369:	75	50	77	81	76	86	81	101
1377:	283	553	483	227	85	70	69	80
1385:	134	169	113	109	71	68	63	68

1393:	68	62	90	51	84	71	64	103
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1409:	332	167	90	75	73	68	70	78
1417:	62	73	69	78	73	74	57	79
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1457:	75	69	89	112	196	202	121	77
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1489:	63	77	89	68	83	76	88	67
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1585:	96	62	53	63	47	53	51	42
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1849:	192	69	26	27	21	14	23	27
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1969:	14	16	24	16	18	13	19	16
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1985:	14	21	13	13	17	13	16	11
1993:	16	13	22	12	15	12	12	14
2001:	14	8	10	8	14	11	20	16
2009:	15	18	22	20	17	13	15	8
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2049:	11	11	17	10	14	15	7	12
2057:	14	16	12	8	10	12	9	9
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2073:	10	12	9	6	9	11	7	7
2081:	7	4	4	6	10	5	7	11
2089:	10	9	7	9	4	5	4	8
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2137:	5	11	8	10	4	4	10	7
2145:	5	9	6	4	11	6	6	1
2153:	7	8	6	8	1	3	7	9
2161:	5	2	11	6	9	4	6	1
2169:	4	9	9	8	10	8	7	7
2177:	5	8	9	6	7	10	12	5
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2193:	4	11	10	10	5	5	6	4
2201:	10	10	57	167	333	321	153	35
2209:	2	4	4	5	4	5	1	1
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2225:	2	3	1	7	5	3	1	9
2233:	3	1	5	7	2	3	0	2
2241:	4	4	6	6	5	3	2	1
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2257:	3	4	4	6	2	6	3	7
2265:	2	4	8	2	6	5	1	5
2273:	0	1	3	1	4	3	2	2
2281:	3	2	2	2	2	1	0	3
2289:	1	3	5	2	11	22	20	9
2297:	2	2	1	3	2	4	2	3
2305:	2	4	1	2	1	5	3	1
2313:	2	1	3	3	2	4	1	0
2321:	3	1	2	1	2	2	1	1
2329:	1	2	3	4	3	1	2	0
2337:	3	4	2	4	1	0	0	2
2345:	2	1	2	1	3	1	1	2

2353:	1	1	1	0	2	2	2	1
2361:	3	0	2	3	0	0	1	1
2369:	4	1	2	3	1	1	2	2
2377:	2	0	1	1	0	1	3	0
2385:	2	0	0	0	3	1	3	2
2393:	0	0	3	0	4	1	1	1
2401:	1	1	1	1	5	2	1	2
2409:	1	1	1	0	0	2	1	1
2417:	2	2	1	0	0	1	2	2
2425:	1	2	4	2	0	0	5	3
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2449:	103	76	44	7	2	0	0	3
2457:	1	1	1	1	1	2	1	1
2465:	1	0	0	1	1	0	0	0
2473:	1	0	0	0	1	2	0	0
2481:	0	1	1	2	0	1	2	1
2489:	1	0	0	0	3	1	2	0
2497:	1	1	2	0	2	1	0	0
2505:	1	2	1	1	0	0	0	1
2513:	1	1	2	0	0	1	0	1
2521:	1	2	1	0	0	0	1	0
2529:	0	0	0	0	3	0	0	2
2537:	1	1	0	0	1	0	0	2
2545:	2	0	1	1	0	1	2	1
2553:	1	0	1	0	1	0	1	2
2561:	0	0	0	0	0	0	0	0
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2577:	0	2	1	0	0	1	0	0
2585:	0	0	0	0	0	0	2	0
2593:	0	0	0	0	0	1	2	0
2601:	0	0	0	1	1	0	0	1
2609:	1	1	0	0	0	1	3	5
2617:	3	4	1	1	0	0	2	0
2625:	0	1	0	0	1	0	1	0
2633:	0	0	0	1	0	1	1	0
2641:	0	1	0	0	0	1	2	2
2649:	0	1	1	0	1	0	0	0
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2665:	0	0	0	0	0	1	0	0
2673:	0	0	1	0	0	1	0	0
2681:	0	1	0	1	0	0	1	0
2689:	1	0	0	0	0	1	0	5
2697:	4	1	2	1	1	0	1	0
2705:	1	0	0	1	0	0	1	0
2713:	0	1	1	0	0	0	1	0
2721:	1	0	1	1	0	1	0	0
2729:	0	0	0	0	0	0	0	1
2737:	0	0	0	0	0	0	0	0
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2753:	1	0	1	0	0	1	0	1
2761:	0	0	0	0	0	1	0	0
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2777:	0	0	0	0	1	0	0	0
2785:	0	1	0	1	0	1	0	0
2793:	0	1	0	0	0	0	0	0
2801:	0	0	0	0	0	0	0	1
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2865:	0	0	0	1	0	0	0	0
2873:	0	0	0	0	0	0	0	0
2881:	0	0	2	1	0	0	0	0
2889:	0	0	0	0	0	0	2	1
2897:	0	0	0	0	0	0	0	0
2905:	0	0	0	0	0	1	0	0
2913:	0	0	2	0	0	0	1	0
2921:	0	1	0	1	0	0	0	0
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2937:	0	0	1	0	0	0	2	1
2945:	0	0	1	0	0	0	0	0
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2961:	0	0	1	0	0	0	0	0
2969:	0	0	0	0	1	0	0	0
2977:	0	0	0	1	0	2	0	0
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3001:	1	0	0	0	0	0	0	0
3009:	0	2	0	0	0	1	0	1
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3033:	0	0	0	1	0	0	0	0
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3049:	0	0	2	1	0	1	2	1
3057:	0	1	0	0	0	0	0	0
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3073:	0	0	0	0	1	0	0	1
3081:	0	0	0	0	2	0	0	0
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3097:	0	0	0	0	0	0	0	0
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3193:	0	0	0	0	0	0	0	1
3201:	0	0	0	0	1	1	1	0
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3217:	0	0	0	1	0	0	0	0
3225:	0	0	0	0	0	1	0	1
3233:	1	0	0	0	1	0	1	1
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3273:	0	1	0	0	0	0	0	0
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3401:	0	0	1	0	0	0	0	0
3409:	0	0	1	0	0	0	1	0
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3473:	0	0	1	0	0	0	0	0
3481:	0	0	0	0	0	0	0	0
3489:	0	0	0	0	0	0	0	0
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3521:	1	0	0	0	0	0	0	0
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3681:	0	0	0	0	0	0	0	0
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3897:	0	0	0	0	0	0	0	0
3905:	0	0	0	0	0	0	0	0
3913:	1	0	0	0	0	0	0	0
3921:	0	0	0	1	0	0	0	0
3929:	0	0	0	0	0	1	0	0
3937:	1	0	0	0	0	0	0	0
3945:	0	0	0	0	0	0	0	1
3953:	0	0	0	0	0	0	0	0
3961:	0	0	0	0	0	0	0	0
3969:	0	0	0	0	0	1	0	0
3977:	0	1	0	0	0	0	0	0
3985:	0	0	0	0	1	0	1	0
3993:	0	0	0	0	1	0	0	0
4001:	0	0	0	1	0	0	0	0
4009:	0	0	0	0	0	0	0	0
4017:	0	0	0	0	0	0	0	0
4025:	0	1	0	0	0	0	0	0
4033:	0	0	0	1	0	0	0	0
4041:	0	0	0	0	0	0	0	0
4049:	0	0	0	0	0	0	0	0
4057:	0	0	0	0	0	0	0	0
4065:	0	0	0	0	0	0	0	0
4073:	0	0	0	0	0	0	0	0
4081:	1	1	0	0	0	0	0	0
4089:	0	1	0	0	0	0	0	0

Sample ID : 1111068-15

Acquisition date : 11-DEC-2011 16:44:05

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12/11/11

VAX/VMS Peak Search Report Generated 11-DEC-2011 17:44:30.72

Configuration : DKA100: [GAMMA.SCUSR.ARCHIVE] SMP 111106815_GE1_GAS1102_172299.
 Analyses by : PEAK V16.9 ENBACK V1.6 PEAKEFF V2.2
 Client ID : S12-52-31-111107
 Deposition Date :
 Sample Date : 7-NOV-2011 00:00:00. Acquisition date : 11-DEC-2011 16:44:05
 Sample ID : 1111068-15 Sample Quantity : 3.93430E+02 GRAM
 Sample type : SOIL Sample Geometry : 0
 Detector name : GE1 Detector Geometry: GAS-1102
 Elapsed live time: 0 01:00:00.00 Elapsed real time: 0 01:00:11.58 0.3%
 Start channel : 5 End channel : 4096
 Sensitivity : 2.40000 Gaussian : 15.00000
 Critical level : Yes

Post-NID Peak Search Report

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides
0	46.66*	2238	4604	1.83	46.29	44	5	10.0		PB-210
0	53.24	818	6989	1.30	52.86	50	6	33.1		
0	63.46*	5320	9198	1.49	63.09	60	6	6.3		TH-234
1	68.51	421	4867	1.54	68.14	67	16	44.8	6.32E+02	
1	75.37*	5075	6461	1.41	75.00	67	16	5.5		AM-243
1	84.26*	1139	6463	1.29	83.89	82	16	19.8	7.45E+02	
1	87.38	2328	7386	1.58	87.01	82	16	11.6		NP-237 SN-126 CD-109
1	90.37	1013	5505	1.44	90.00	82	16	22.3		
0	112.72*	630	6548	1.60	112.36	109	8	45.3		
0	121.64	179	3798	4.10	121.28	120	5	104.6		CO-57
0	144.36*	928	5644	1.26	144.01	141	7	27.7		U-235 CE-141
0	154.44	334	3960	1.72	154.09	152	5	57.6		
0	164.03	398	4146	2.29	163.67	161	6	52.3		U-235
0	186.27*	6511	6052	1.46	185.92	181	9	5.0		RA-226
0	205.44	208	2673	1.58	205.10	204	5	76.0		U-235
0	215.47	136	2324	1.64	215.13	213	5	108.4		
1	236.49	439	2238	1.54	236.16	233	13	33.6	1.18E+01	
1	239.49*	519	2211	1.76	239.16	233	13	30.3		PB-212
1	242.38	4505	1730	1.50	242.05	233	13	4.0		RA-224
1	256.49	233	1790	1.77	256.16	253	10	56.8	7.32E-01	
1	259.17	294	1777	1.78	258.84	253	10	45.7		
0	270.44	526	2883	2.95	270.11	266	8	36.3		
0	285.55	181	1510	1.26	285.22	283	5	66.2		
3	295.61*	10161	1522	1.55	295.29	290	13	2.3	4.71E+00	PB-214
3	299.78	415	2042	2.19	299.45	290	13	47.7		PB-212
0	322.97	213	1896	3.58	322.65	319	8	72.3		RA-223
0	338.42*	124	1490	1.90	338.10	336	6	100.3		AC-228
2	352.29*	17223	1067	1.60	351.98	347	13	1.6	1.70E+01	PB-214
2	355.96	411	1098	2.04	355.65	347	13	40.3		
0	388.10	285	1710	3.13	387.80	384	9	53.6		
1	402.13	211	1158	1.89	401.83	396	13	52.9	5.91E-01	RN-219
1	405.47	143	1175	1.90	405.17	396	13	79.4		PB-211
0	426.91	297	1733	3.66	426.62	422	10	53.9		

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12/11/11

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides
0	461.77	111	789	2.09	461.48	459	6	82.2		
0	480.62	106	804	1.93	480.34	479	7	91.1		
5	487.56	148	544	1.80	487.27	485	20	49.7	8.64E-01	
5	490.90	82	972	2.86	490.62	485	20	142.2		
0	511.05*	170	876	2.77	510.77	507	8	63.3		
5	580.55	143	689	2.47	580.29	577	10	63.5	2.36E+00	
5	583.64*	107	577	2.00	583.38	577	10	76.3		TL-208
10	609.63*	12596	409	1.77	609.37	605	17	1.9	6.07E+00	BI-214
10	612.97	356	752	3.40	612.72	605	17	70.4		
0	666.33	375	688	2.02	666.09	662	10	28.4		
0	702.96	81	586	2.03	702.72	700	8	104.7		
0	719.83	104	568	3.94	719.59	716	9	84.9		
0	741.88	105	559	2.71	741.65	738	9	83.1		
0	768.35	1333	684	2.17	768.13	763	11	9.4		
0	786.32	361	614	2.26	786.10	782	11	28.6		
0	806.48	255	572	1.97	806.26	802	9	36.1		
0	825.76	61	343	1.80	825.55	823	6	99.4		
0	831.64	72	362	2.59	831.43	829	6	86.0		PB-211
0	839.50	154	533	1.98	839.29	836	8	54.7		
0	889.94	64	409	1.55	889.74	886	7	107.1		SC-46
0	910.56	106	484	2.05	910.37	907	8	74.5		AC-228
3	929.81	48	230	2.43	929.62	927	16	99.4	3.02E+00	
3	934.42	671	287	1.95	934.23	927	16	11.1		
0	969.21*	66	306	1.96	969.02	967	6	87.3		AC-228
0	1001.32*	279	479	1.47	1001.15	997	9	30.7		PA-234M
0	1023.51	74	404	5.22	1023.34	1017	10	105.8		
0	1051.69	73	334	1.72	1051.53	1047	9	93.2		
0	1058.85	33	171	2.83	1058.69	1057	5	123.9		
0	1069.22	71	381	2.96	1069.05	1066	9	101.5		
0	1120.59	2697	471	2.13	1120.44	1115	11	5.0		BI-214 SC-46
0	1134.68	63	414	4.76	1134.53	1130	10	123.3		
0	1156.01	308	402	2.08	1155.87	1151	11	27.8		
3	1183.44	54	277	2.81	1183.30	1177	17	110.5	1.80E+00	
3	1190.22	46	265	2.81	1190.08	1177	17	127.7		
0	1208.25	111	398	1.83	1208.12	1202	11	72.5		
0	1238.39	999	357	2.10	1238.27	1234	10	9.5		
0	1281.35	249	329	2.37	1281.23	1277	11	31.0		
0	1302.39	66	229	2.01	1302.28	1299	10	89.0		
1	1377.91	697	172	2.19	1377.81	1371	20	9.8	1.87E+00	
1	1385.94	120	182	2.40	1385.85	1371	20	41.2		
2	1401.81	282	159	2.65	1401.72	1396	23	19.9	3.16E+00	
2	1408.11	369	147	2.36	1408.02	1396	23	15.3		
2	1412.55	52	175	2.65	1412.46	1396	23	110.6		
0	1461.00*	923	288	2.40	1460.92	1456	12	9.9		K-40
0	1509.10	296	272	2.32	1509.03	1505	9	23.2		
2	1538.49	86	153	2.71	1538.43	1535	18	49.2	1.94E+00	
2	1543.99	72	190	2.71	1543.93	1535	18	71.6		
3	1578.67	26	64	2.01	1578.61	1577	10	98.4	2.10E+00	
3	1582.74	89	139	2.31	1582.69	1577	10	48.8		
0	1600.13	50	181	1.83	1600.08	1596	8	98.3		

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides
0	1661.37	133	105	2.42	1661.33	1657	9	32.9		
0	1682.18	36	93	5.57	1682.15	1678		9102.7		
0	1692.51	34	96	2.45	1692.48	1690		9110.6		
0	1729.67	427	130	2.18	1729.65	1724	12	14.4		
0	1764.72*	2152	103	2.47	1764.71	1759	13	4.7		BI-214
2	1838.02	45	45	2.83	1838.02	1833	23	62.8	1.11E+00	
2	1847.56	322	49	2.51	1847.56	1833	23	13.4		
0	1874.06	39	64	1.62	1874.06	1869	9	80.5		
0	1897.33	45	32	4.97	1897.34	1894	8	53.3		
0	1938.22	46	80	7.31	1938.24	1930	15	89.8		
0	1956.21	30	31	3.82	1956.23	1952	8	74.7		
0	1972.34	48	42	10.29	1972.36	1964	16	68.4		
0	2010.83	15	27	2.23	2010.87	2008		6121.1		
0	2020.42	38	58	6.66	2020.46	2014	16	95.5		
0	2041.13	24	18	3.25	2041.17	2036	9	74.7		
0	2063.95	19	21	1.46	2063.99	2060	9	95.5		
0	2078.45	15	13	1.63	2078.50	2074		8105.5		
0	2118.44	134	36	2.16	2118.50	2113	11	24.4		
0	2147.76	11	7	2.77	2147.82	2144		7100.0		
1	2199.93	14	5	2.45	2200.00	2198	15	55.5	4.28E+00	
1	2203.87*	580	14	2.69	2203.95	2198	15	8.8		BI-214
0	2216.05	16	10	3.46	2216.13	2212	8	83.5		
0	2293.26	49	5	2.25	2293.36	2288	11	34.0		
2	2353.42	8	0	3.01	2353.52	2352	10	57.6	5.10E-01	
2	2358.37	10	0	3.01	2358.48	2352	10	66.9		
0	2371.71	9	5	5.42	2371.82	2366		9113.1		
0	2418.80	7	2	2.97	2418.92	2414	8	99.8		
0	2447.69	183	14	2.63	2447.82	2443	13	17.2		
0	2614.10*	48	3	2.45	2614.26	2608	11	33.4		TL-208
0	2721.98	6	0	1.98	2722.17	2718	7	81.6		

Total number of lines in spectrum 113
 Number of unidentified lines 65
 Number of lines tentatively identified by NID 48 42.48%

Nuclide Type : NATURAL

Nuclide	Hlife	Decay	Wtd Mean		Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
			Uncorrected pCi/GRAM	Decay Corr pCi/GRAM			
K-40	1.28E+09Y	1.00	3.285E+01	3.285E+01	0.448E+01	13.63	
TL-208	1.41E+10Y	1.00	7.074E-01	7.074E-01	2.256E-01	31.90	
PB-210	22.26Y	1.00	4.035E+01	4.047E+01	0.537E+01	13.28	
PB-211	3.28E+04Y	1.00	6.495E+00	6.495E+00	3.819E+00	58.80	
PB-212	1.41E+10Y	1.00	1.111E+00	1.111E+00	0.352E+00	31.66	
BI-214	1602.00Y	1.00	5.562E+01	5.562E+01	0.353E+01	6.34	
PB-214	1602.00Y	1.00	5.799E+01	5.799E+01	0.384E+01	6.62	
RN-219	3.28E+04Y	1.00	4.486E+00	4.486E+00	2.410E+00	53.74	
RA-223	3.28E+04Y	1.00	6.430E+00	6.430E+00	4.689E+00	72.92	
RA-224	1.41E+10Y	1.00	1.095E+02	1.095E+02	0.109E+02	9.94	
RA-226	1602.00Y	1.00	1.641E+02	1.641E+02	3.007E+02	183.22	
AC-228	1.41E+10Y	1.00	1.100E+00	1.100E+00	0.548E+00	49.85	
PA-234M	4.47E+09Y	1.00	8.707E+01	8.707E+01	2.784E+01	31.97	
TH-234	4.47E+09Y	1.00	9.263E+01	9.263E+01	0.976E+01	10.54	
U-235	7.04E+08Y	1.00	4.948E+00	4.948E+00	2.328E+00	47.04	
Total Activity :			6.654E+02	6.655E+02			

Nuclide Type : ACTIVATION

Nuclide	Hlife	Decay	Wtd Mean		Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
			Uncorrected pCi/GRAM	Decay Corr pCi/GRAM			
SC-46	83.83D	1.33	1.679E-01	2.237E-01	2.405E-01	107.51	
AM-243	7380.00Y	1.00	4.993E+00	4.993E+00	0.544E+00	10.90	
Total Activity :			5.160E+00	5.216E+00			

Nuclide Type : FISSION

Nuclide	Hlife	Decay	Wtd Mean		Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
			Uncorrected pCi/GRAM	Decay Corr pCi/GRAM			
CO-57	270.90D	1.09	1.447E-01	1.581E-01	1.663E-01	105.17	
CD-109	464.00D	1.05	4.075E+01	4.292E+01	0.725E+01	16.90	
SN-126	1.00E+05Y	1.00	4.095E+00	4.095E+00	0.647E+00	15.80	
CE-141	32.50D	2.10	1.413E+00	2.963E+00	1.134E+00	38.29	
NP-237	2.14E+06Y	1.00	1.201E+01	1.201E+01	0.189E+01	15.72	
Total Activity :			5.841E+01	6.215E+01			

Grand Total Activity : 7.290E+02 7.329E+02

Flags: "K" = Keyline not found "M" = Manually accepted
 "E" = Manually edited "A" = Nuclide specific abn. limit

Nuclide Type: NATURAL

Nuclide	Energy	%Abn	%Eff	Uncorrected Decay Corr		2-Sigma %Error	Status
				pCi/GRAM	pCi/GRAM		
K-40	1460.81	10.67*	5.027E-01	3.285E+01	3.285E+01	13.63	OK
Final Mean for 1 Valid Peaks = 3.285E+01+/- 4.476E+00 (13.63%)							
TL-208	583.14	30.22*	1.029E+00	6.582E-01	6.582E-01	77.01	OK
	860.37	4.48	7.505E-01	----- Line Not Found		-----	Absent
	2614.66	35.85	3.563E-01	7.196E-01	7.196E-01	35.02	OK
Final Mean for 2 Valid Peaks = 7.074E-01+/- 2.256E-01 (31.90%)							
PB-210	46.50	4.05*	2.613E+00	4.035E+01	4.047E+01	13.28	OK
Final Mean for 1 Valid Peaks = 4.047E+01+/- 5.373E+00 (13.28%)							
PB-211	404.84	2.90*	1.375E+00	6.833E+00	6.833E+00	79.96	OK
	831.96	2.90	7.710E-01	6.172E+00	6.172E+00	86.52	OK
Final Mean for 2 Valid Peaks = 6.495E+00+/- 3.819E+00 (58.80%)							
PB-212	238.63	44.60*	2.000E+00	1.111E+00	1.111E+00	31.66	OK
	300.09	3.41	1.716E+00	1.352E+01	1.352E+01	48.53	<<WM N-Sigma
Final Mean for 1 Valid Peaks = 1.111E+00+/- 3.517E-01 (31.66%)							
BI-214	609.31	46.30*	9.927E-01	5.230E+01	5.230E+01	10.29	OK
	1120.29	15.10	6.104E-01	5.584E+01	5.584E+01	10.37	<<WM Interf
	1764.49	15.80	4.432E-01	5.866E+01	5.866E+01	10.16	OK
	2204.22	4.98	3.885E-01	5.725E+01	5.725E+01	13.12	OK
Final Mean for 3 Valid Peaks = 5.562E+01+/- 3.527E+00 (6.34%)							
PB-214	295.21	19.19	1.736E+00	5.820E+01	5.820E+01	9.38	OK
	351.92	37.19*	1.529E+00	5.778E+01	5.778E+01	9.33	OK
Final Mean for 2 Valid Peaks = 5.799E+01+/- 3.836E+00 (6.62%)							
RN-219	401.80	6.50*	1.383E+00	4.486E+00	4.486E+00	53.74	OK
Final Mean for 1 Valid Peaks = 4.486E+00+/- 2.410E+00 (53.74%)							
RA-223	323.87	3.88*	1.626E+00	6.430E+00	6.430E+00	72.92	OK
Final Mean for 1 Valid Peaks = 6.430E+00+/- 4.689E+00 (72.92%)							
RA-224	240.98	3.95*	1.987E+00	1.095E+02	1.095E+02	9.94	OK
Final Mean for 1 Valid Peaks = 1.095E+02+/- 1.089E+01 (9.94%)							
RA-226	186.21	3.28*	2.308E+00	1.641E+02	1.641E+02	183.22	OK
Final Mean for 1 Valid Peaks = 1.641E+02+/- 3.007E+02 (183.22%)							

Nuclide Type: NATURAL

Nuclide	Energy	%Abn	%Eff	Uncorrected Decay Corr		2-Sigma %Error	Status
				pCi/GRAM	pCi/GRAM		
AC-228	338.32	11.40	1.575E+00	1.315E+00	1.315E+00	100.71	OK
	911.07	27.70*	7.170E-01	1.017E+00	1.017E+00	75.02	OK
	969.11	16.60	6.829E-01	1.118E+00	1.118E+00	87.71	OK
Final Mean for 3 Valid Peaks =				1.100E+00+/- 5.482E-01 (49.85%)			
PA-234M	1001.03	0.92*	6.658E-01	8.707E+01	8.707E+01	31.97	OK
	Final Mean for 1 Valid Peaks =				8.707E+01+/- 2.784E+01 (31.97%)		
TH-234	63.29	3.80*	2.884E+00	9.263E+01	9.263E+01	10.54	OK
	Final Mean for 1 Valid Peaks =				9.263E+01+/- 9.763E+00 (10.54%)		
U-235	143.76	10.50*	2.601E+00	6.483E+00	6.483E+00	33.07	<<WM Interf
	163.35	4.70	2.462E+00	6.559E+00	6.559E+00	55.74	OK
	205.31	4.70	2.188E+00	3.850E+00	3.850E+00	78.41	OK
Final Mean for 2 Valid Peaks =				4.948E+00+/- 2.328E+00 (47.04%)			

Nuclide Type: ACTIVATION

Nuclide	Energy	%Abn	%Eff	Uncorrected Decay Corr		2-Sigma %Error	Status
				pCi/GRAM	pCi/GRAM		
SC-46	889.25	99.98*	7.310E-01	1.679E-01	2.237E-01	107.51	OK
	1120.51	99.99	6.103E-01	8.434E+00	1.124E+01	10.37	<<WM Interf
Final Mean for 1 Valid Peaks =				2.237E-01+/- 2.405E-01 (107.51%)			
AM-243	74.67	66.00*	2.939E+00	4.993E+00	4.993E+00	10.90	OK
	Final Mean for 1 Valid Peaks =				4.993E+00+/- 5.444E-01 (10.90%)		

Nuclide Type: FISSION

Nuclide	Energy	%Abn	%Eff	Uncorrected Decay Corr		2-Sigma %Error	Status
				pCi/GRAM	pCi/GRAM		
CO-57	122.06	85.51*	2.753E+00	1.447E-01	1.581E-01	105.17	OK
	136.48	10.60	2.653E+00	-----	Line Not Found	-----	Absent
Final Mean for 1 Valid Peaks =				1.581E-01+/- 1.663E-01 (105.17%)			
CD-109	88.03	3.72*	2.931E+00	4.075E+01	4.292E+01	16.90	OK
	Final Mean for 1 Valid Peaks =				4.292E+01+/- 7.252E+00 (16.90%)		
SN-126	87.57	37.00*	2.932E+00	4.095E+00	4.095E+00	15.80	OK
	Final Mean for 1 Valid Peaks =				4.095E+00+/- 6.468E-01 (15.80%)		

Nuclide Type: FISSION

Nuclide	Energy	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error	Status
CE-141	145.44	48.40*	2.589E+00	1.413E+00	2.963E+00	38.29	OK

Final Mean for 1 Valid Peaks = 2.963E+00+/- 1.134E+00 (38.29%)

NP-237	86.50	12.60*	2.935E+00	1.201E+01	1.201E+01	15.72	OK
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Final Mean for 1 Valid Peaks = 1.201E+01+/- 1.888E+00 (15.72%)

Flag: "*" = Keyline

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.285E+01	4.476E+00	2.248E+00	1.906E-01	14.610
SC-46	2.237E-01	2.405E-01	3.244E-01	2.596E-02	0.690
CO-57	1.581E-01	1.663E-01	2.424E-01	2.340E-02	0.652
CD-109	4.292E+01	7.252E+00	6.602E+00	7.666E-01	6.501
SN-126	4.095E+00	6.468E-01	6.298E-01	6.260E-02	6.502
CE-141	2.963E+00	1.134E+00	9.006E-01	2.354E-01	3.290
TL-208	7.074E-01	2.256E-01	6.908E-01	6.388E-02	1.024
PB-210	4.047E+01	5.373E+00	5.124E+00	3.955E-01	7.899
PB-211	6.495E+00	3.819E+00	7.184E+00	5.973E-01	0.904
PB-212	1.111E+00	3.517E-01	4.596E-01	3.763E-02	2.417
BI-214	5.562E+01	3.527E+00	4.415E-01	4.106E-02	125.968
PB-214	5.799E+01	3.836E+00	5.374E-01	4.445E-02	107.904
RN-219	4.486E+00	2.410E+00	3.185E+00	2.640E-01	1.408
RA-223	6.430E+00	4.689E+00	5.112E+00	4.216E-01	1.258
RA-224	1.095E+02	1.089E+01	5.225E+00	4.278E-01	20.957
RA-226	1.641E+02	3.007E+02	6.621E+00	1.212E+01	24.786
AC-228	1.100E+00	5.482E-01	8.877E-01	7.054E-02	1.239
PA-234M	8.707E+01	2.784E+01	2.611E+01	2.116E+00	3.335
TH-234	9.263E+01	9.763E+00	6.385E+00	4.731E-01	14.508
U-235	4.948E+00	2.328E+00	1.969E+00	3.472E-01	2.513
NP-237	1.201E+01	1.888E+00	1.847E+00	1.813E-01	6.506
AM-243	4.993E+00	5.444E-01	3.830E-01	3.259E-02	13.037

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	2.745E-01		1.908E+00	2.986E+00	2.632E-01	0.092
NA-22	2.841E-02		1.649E-01	2.498E-01	2.045E-02	0.114
AL-26	4.887E-02		9.388E-02	1.683E-01	1.344E-02	0.290
TI-44	2.922E-01	+	1.333E-01	2.747E-01	2.152E-02	1.064
V-48	6.411E-01		6.272E-01	1.101E+00	8.894E-02	0.583
CR-51	2.283E-01		3.318E+00	4.812E+00	4.195E-01	0.047
MN-54	-6.383E-03		2.218E-01	2.666E-01	2.262E-02	-0.024
CO-56	1.597E-01		2.079E-01	3.272E-01	2.744E-02	0.488
CO-58	-2.713E-02		2.070E-01	3.141E-01	2.729E-02	-0.086
FE-59	2.366E-01		4.373E-01	7.536E-01	6.720E-02	0.314
CO-60	-3.973E-02		1.667E-01	2.466E-01	2.016E-02	-0.161
ZN-65	2.174E-01		3.611E-01	5.604E-01	4.592E-02	0.388
SE-75	9.295E-03		3.147E-01	4.012E-01	3.294E-02	0.023
RB-82	2.448E+00		2.995E+00	4.373E+00	3.887E-01	0.560
RB-83	1.732E-01		3.333E-01	5.576E-01	8.848E-02	0.311
KR-85	3.338E+01		3.058E+01	4.893E+01	4.406E+00	0.682
SR-85	2.102E-01		1.926E-01	3.081E-01	2.775E-02	0.682
Y-88	2.192E-01		1.315E-01	2.621E-01	2.082E-02	0.836
NB-93M	-3.113E+01		7.229E+00	2.256E-01	5.020E-02	-138.005
NB-94	-2.300E-02		1.391E-01	2.350E-01	1.921E-02	-0.098
NB-95	3.439E+00		4.906E-01	7.318E-01	6.555E-02	4.699

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ZR-95	-3.164E-01		3.346E-01	5.504E-01	5.416E-02	-0.575
RU-103	3.293E-02		2.769E-01	3.971E-01	5.698E-02	0.083
RU-106	3.945E-01		1.319E+00	2.067E+00	2.856E-01	0.191
AG-108M	5.946E-02		1.588E-01	2.472E-01	2.264E-02	0.240
AG-110M	-2.855E-02		1.491E-01	2.282E-01	2.131E-02	-0.125
SN-113	1.251E-01		3.137E-01	3.990E-01	3.386E-02	0.314
TE123M	-1.186E-01		2.416E-01	3.095E-01	2.562E-02	-0.383
SB-124	-4.768E-02		2.057E-01	3.149E-01	2.925E-02	-0.151
I-125	-8.858E-01		2.917E+00	4.821E+00	4.373E-01	-0.184
SB-125	1.501E+00	+	8.220E-01	7.942E-01	6.878E-02	1.890
SB-126	2.957E+00	+	2.528E+00	2.924E+00	2.681E-01	1.011
I-129	-5.247E-01		2.594E-01	4.084E-01	4.288E-02	-1.285
I-131	1.462E+00		2.826E+00	4.760E+00	3.933E-01	0.307
BA-133	8.667E-01	+	3.684E-01	5.122E-01	6.646E-02	1.692
CS-134	2.063E-01		1.479E-01	2.375E-01	2.212E-02	0.869
CS-135	2.399E+00		9.078E-01	1.362E+00	1.108E-01	1.762
CS-136	8.438E-02		1.243E+00	1.883E+00	1.589E-01	0.045
CS-137	1.345E-01		1.544E-01	2.456E-01	2.297E-02	0.548
LA-138	-2.273E-03		2.253E-01	3.766E-01	3.095E-02	-0.006
CE-139	2.923E-01		2.087E-01	3.131E-01	2.503E-02	0.933
BA-140	-1.185E+00		3.125E+00	5.295E+00	1.762E+00	-0.224
LA-140	1.310E+00		1.227E+00	1.943E+00	1.594E-01	0.674
CE-144	-7.432E-02		1.241E+00	1.999E+00	1.848E-01	-0.037
PM-144	-5.583E-02		1.454E-01	2.196E-01	2.035E-02	-0.254
PM-145	8.945E-02		5.774E-01	9.550E-01	6.219E-01	0.094
PM-146	2.182E-01		3.123E-01	5.248E-01	4.550E-02	0.416
ND-147	6.078E+00		7.853E+00	1.380E+01	1.253E+00	0.441
EU-152	9.188E+00	+	1.746E+00	2.697E+00	2.856E-01	3.407
GD-153	-9.834E-01		5.960E-01	9.329E-01	9.129E-02	-1.054
EU-154	8.298E-02		4.563E-01	6.916E-01	5.660E-02	0.120
EU-155	4.965E+00	+	7.803E-01	9.409E-01	9.235E-02	5.276
EU-156	-3.748E+00		7.077E+00	1.045E+01	2.389E+00	-0.359
HO-166M	-1.834E-01		3.297E-01	3.855E-01	3.547E-02	-0.476
HF-172	-3.809E-01		1.191E+00	1.765E+00	1.679E-01	-0.216
LU-172	-1.182E+01		8.461E+00	1.328E+01	1.086E+00	-0.890
LU-173	1.575E+00		7.618E-01	1.137E+00	9.240E-02	1.385
HF-175	-1.034E-01		2.792E-01	3.465E-01	2.866E-02	-0.298
LU-176	-1.856E-03		1.412E-01	2.047E-01	1.680E-02	-0.009
TA-182	2.983E+01	+	3.094E+00	2.817E+00	2.306E-01	10.592
IR-192	2.696E-01		3.612E-01	5.751E-01	5.038E-02	0.469
HG-203	-3.059E-01		3.155E-01	4.461E-01	3.729E-02	-0.686
BI-207	-4.868E-02		1.218E-01	2.073E-01	1.910E-02	-0.235
BI-210M	2.617E-01		3.436E-01	4.471E-01	3.647E-02	0.585
BI-212	-2.666E-01		1.202E+00	1.824E+00	1.667E-01	-0.146
RA-225	-8.020E-01		2.171E+00	3.305E+00	2.766E-01	-0.243
TH-227	3.619E+00	+	1.260E+00	1.963E+00	1.607E-01	1.844
TH-230	7.451E+01	+	3.399E+01	6.986E+01	5.459E+00	1.066
PA-231	1.096E+01		5.973E+00	8.959E+00	7.340E-01	1.223

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-231	2.036E+00		1.238E+00	2.059E+00	2.517E-01	0.989
PA-233	3.410E-01		7.661E-01	1.215E+00	2.711E-01	0.281
PA-234	-1.940E-01		6.001E-01	9.639E-01	8.988E-02	-0.201
AM-241	1.119E+00		5.070E-01	6.882E-01	4.874E-02	1.626
CM-243	1.998E-01		1.016E+00	1.484E+00	1.203E-01	0.135

Total number of lines in spectrum 113
 Number of unidentified lines 65
 Number of lines tentatively identified by NID 48 42.48%

Nuclide Type : NATURAL

Nuclide	Hlife	Decay	Wtd Mean		Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
			Uncorrected pCi/GRAM	Decay Corr pCi/GRAM			
K-40	1.28E+09Y	1.00	3.285E+01	3.285E+01	0.448E+01	13.63	
TL-208	1.41E+10Y	1.00	7.074E-01	7.074E-01	2.256E-01	31.90	
PB-210	22.26Y	1.00	4.035E+01	4.047E+01	0.537E+01	13.28	
PB-211	3.28E+04Y	1.00	6.495E+00	6.495E+00	3.819E+00	58.80	
PB-212	1.41E+10Y	1.00	1.111E+00	1.111E+00	0.352E+00	31.66	
BI-214	1602.00Y	1.00	5.562E+01	5.562E+01	0.353E+01	6.34	
PB-214	1602.00Y	1.00	5.799E+01	5.799E+01	0.384E+01	6.62	
RN-219	3.28E+04Y	1.00	4.486E+00	4.486E+00	2.410E+00	53.74	
RA-223	3.28E+04Y	1.00	6.430E+00	6.430E+00	4.689E+00	72.92	
RA-224	1.41E+10Y	1.00	1.095E+02	1.095E+02	0.109E+02	9.94	
RA-226	1602.00Y	1.00	1.641E+02	1.641E+02	3.007E+02	183.22	
AC-228	1.41E+10Y	1.00	1.100E+00	1.100E+00	0.548E+00	49.85	
PA-234M	4.47E+09Y	1.00	8.707E+01	8.707E+01	2.784E+01	31.97	
TH-234	4.47E+09Y	1.00	9.263E+01	9.263E+01	0.976E+01	10.54	
U-235	7.04E+08Y	1.00	4.948E+00	4.948E+00	2.328E+00	47.04	
Total Activity :			6.654E+02	6.655E+02			

Nuclide Type : ACTIVATION

Nuclide	Hlife	Decay	Wtd Mean		Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
			Uncorrected pCi/GRAM	Decay Corr pCi/GRAM			
SC-46	83.83D	1.33	1.679E-01	2.237E-01	2.405E-01	107.51	
AM-243	7380.00Y	1.00	4.993E+00	4.993E+00	0.544E+00	10.90	
Total Activity :			5.160E+00	5.216E+00			

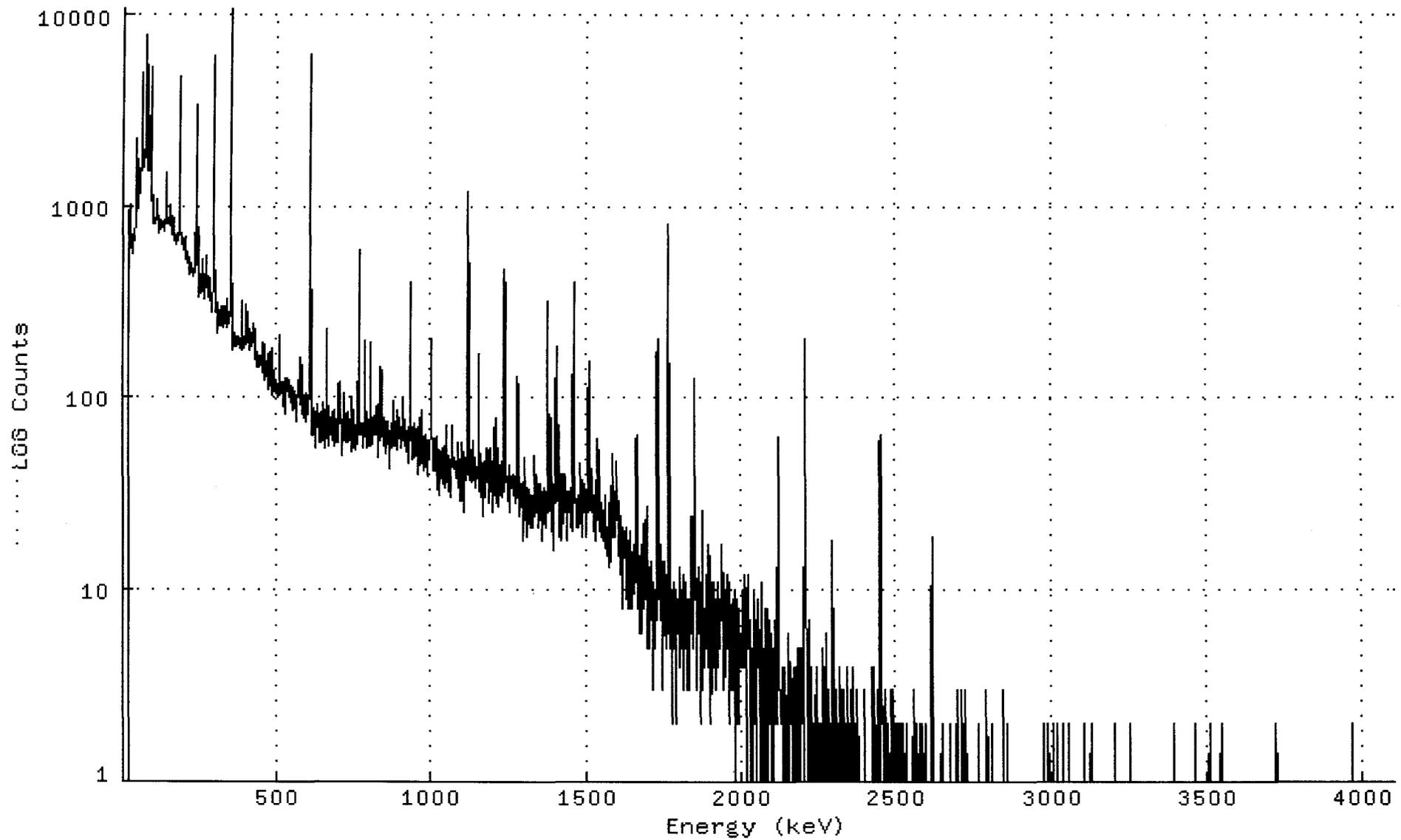
Nuclide Type : FISSION

Nuclide	Hlife	Decay	Wtd Mean		Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
			Uncorrected pCi/GRAM	Decay Corr pCi/GRAM			
CO-57	270.90D	1.09	1.447E-01	1.581E-01	1.663E-01	105.17	
CD-109	464.00D	1.05	4.075E+01	4.292E+01	0.725E+01	16.90	
SN-126	1.00E+05Y	1.00	4.095E+00	4.095E+00	0.647E+00	15.80	
CE-141	32.50D	2.10	1.413E+00	2.963E+00	1.134E+00	38.29	
NP-237	2.14E+06Y	1.00	1.201E+01	1.201E+01	0.189E+01	15.72	
Total Activity :			5.841E+01	6.215E+01			

Grand Total Activity : 7.290E+02 7.329E+02

Flags: "K" = Keyline not found "M" = Manually accepted
 "E" = Manually edited "A" = Nuclide specific abn. limit

Spectrum : DKA100:[GAMMA.SCUSR.ARCHIVE]SMP_111106815_GE1_GAS1102_172299.CNF;1
Title :
Sample Title: S12-52-31-111107
Start Time: 11-DEC-2011 16:44 Sample Time: 7-NOV-2011 00:00: Energy Offset: 3.84457E-01
Real Time : 0 01:00:11.58 Sample ID : 1111068-15 Energy Slope : 9.99792E-01
Live Time : 0 01:00:00.00 Sample Type: SOIL Energy Quad : 0.00000E+00



Channel Contents for DKA100: [GAMMA.SCUSR.ARCHIVE] SMP_111106815_GE1_GAS1102_1722

Channel

1:	0	0	0	0	0	0	0	0
9:	0	0	0	0	0	0	0	0
17:	0	4	594	843	809	893	994	898
25:	766	732	671	621	557	639	676	697
33:	599	657	656	696	722	667	688	733
41:	786	827	799	845	1031	2175	1892	948
49:	1043	1238	1140	1162	1730	1394	1143	1223
57:	1224	1368	1462	1597	1674	1999	4800	3032
65:	1509	1563	1685	1897	1667	1693	1639	1775
73:	1814	3073	5004	3262	7601	3667	1914	1719
81:	1897	1510	1697	2434	1498	1492	2881	2273
89:	1515	2021	1494	3675	5125	1712	1343	1055
97:	976	1118	1061	876	795	831	836	824
105:	853	841	798	795	860	896	874	931
113:	1071	892	847	817	806	713	720	799
121:	830	797	800	750	769	773	786	785
129:	765	822	769	759	784	796	802	733
137:	821	832	737	827	813	822	969	1450
145:	907	818	805	787	844	810	801	798
153:	842	986	895	773	801	760	765	784
161:	690	774	869	831	710	670	648	713
169:	692	668	691	679	614	671	648	677
177:	685	659	665	652	656	689	743	738
185:	1888	4597	1931	712	669	713	661	616
193:	623	625	656	662	583	589	576	595
201:	590	626	523	536	676	615	529	525
209:	551	534	538	492	496	481	519	534
217:	430	462	439	497	472	443	478	483
225:	441	460	463	438	435	446	422	451
233:	456	445	453	714	536	562	713	482
241:	1148	3300	1335	445	389	454	410	366
249:	329	354	371	379	346	360	397	487
257:	430	470	517	391	350	340	362	332
265:	321	360	327	343	536	529	531	415
273:	368	386	426	356	327	354	338	367
281:	353	313	315	337	350	412	277	311
289:	336	304	304	326	373	1192	5944	3735
297:	523	378	375	448	289	289	290	275
305:	310	282	215	236	262	245	253	277
313:	233	272	278	254	284	246	236	266
321:	267	292	265	296	249	238	230	263
329:	265	298	265	238	267	279	244	231
337:	254	322	326	247	237	275	248	259
345:	238	272	249	271	347	524	3626	10651
353:	3232	415	334	384	267	227	175	184
361:	206	201	201	214	183	207	190	187
369:	188	193	207	182	204	189	201	204
377:	200	201	191	202	191	180	187	183
385:	177	243	265	243	314	187	200	183
393:	205	190	195	180	194	201	197	201
401:	235	301	234	223	275	231	214	202
409:	196	178	203	177	205	214	223	199
417:	204	214	203	207	185	193	200	211
425:	211	218	238	216	192	184	167	155

433:	156	157	148	170	144	161	151	163
441:	143	151	145	144	156	152	164	146
449:	148	149	156	153	145	150	190	146
457:	151	136	127	152	162	186	151	122
465:	141	130	145	127	137	153	141	110
473:	135	156	168	122	128	116	115	161
481:	171	125	119	118	101	128	180	162
489:	118	137	115	128	122	106	110	121
497:	118	105	120	110	110	117	107	100
505:	110	109	104	102	130	208	196	172
513:	120	104	120	104	113	115	111	106
521:	98	104	119	106	93	82	98	116
529:	94	108	109	125	126	126	112	107
537:	113	107	110	101	121	104	103	118
545:	100	97	94	97	103	114	101	109
553:	101	85	93	111	93	89	99	101
561:	88	106	88	96	103	95	74	98
569:	101	99	106	121	110	100	120	111
577:	92	98	118	160	134	123	145	144
585:	81	90	97	103	78	93	81	90
593:	94	91	91	75	90	105	92	95
601:	81	102	97	99	85	106	196	1254
609:	6042	4910	667	201	201	162	89	91
617:	64	97	70	72	63	80	73	87
625:	71	65	67	69	54	77	91	72
633:	72	82	70	77	65	58	68	78
641:	81	66	63	82	75	58	68	76
649:	94	77	60	63	62	74	64	55
657:	85	54	82	75	86	81	61	103
665:	211	226	89	90	68	72	62	55
673:	69	68	73	69	78	73	67	59
681:	77	65	78	83	77	56	74	65
689:	59	86	80	70	58	75	66	76
697:	67	74	58	61	66	76	113	120
705:	83	74	74	95	72	79	74	73
713:	66	53	61	50	81	59	82	105
721:	83	76	78	58	81	72	80	77
729:	59	58	73	73	67	83	64	65
737:	59	64	68	69	84	91	99	66
745:	71	52	73	76	54	60	81	76
753:	85	59	67	66	53	69	62	62
761:	70	57	63	62	102	139	221	577
769:	516	137	64	73	63	65	69	70
777:	67	63	73	56	54	56	63	80
785:	137	195	129	62	62	70	67	54
793:	59	72	83	66	56	76	72	58
801:	62	65	56	60	114	194	143	57
809:	77	60	67	57	57	61	65	63
817:	79	63	77	70	68	68	63	63
825:	82	90	57	49	54	62	87	91
833:	80	60	74	68	71	85	143	131
841:	63	62	64	63	74	71	68	55
849:	78	56	56	63	51	74	60	54
857:	55	59	62	57	74	66	62	67
865:	42	57	60	54	55	62	67	71
873:	54	69	65	81	73	73	64	64
881:	96	56	75	57	59	55	65	66
889:	68	85	68	66	53	75	63	62
897:	69	61	78	63	60	56	64	70
905:	63	54	62	71	71	71	100	97

913:	61	57	68	56	62	67	66	52
921:	54	65	60	58	68	45	46	46
929:	69	63	49	69	129	394	227	74
937:	63	69	58	64	55	54	47	50
945:	62	51	53	48	72	65	52	51
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977:	51	52	41	60	59	64	44	45
985:	61	43	44	39	42	47	59	43
993:	58	52	54	49	53	58	61	88
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1033:	48	45	47	48	35	40	42	40
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1073:	44	42	47	43	49	47	46	46
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1089:	46	39	41	34	39	29	41	47
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1145:	49	35	39	42	42	43	42	41
1153:	37	60	167	142	67	32	41	51
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1233:	36	32	41	65	183	467	344	96
1241:	45	45	38	36	36	29	39	30
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1281:	129	108	45	39	30	31	24	35
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1369:	27	25	21	28	32	31	25	71
1377:	230	317	160	41	26	30	31	40
1385:	67	78	33	24	37	20	33	35

1393:	22	25	22	16	30	34	28	46
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1409:	107	49	27	42	34	35	32	19
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1489:	27	35	30	34	31	28	32	19
1497:	32	29	25	29	29	33	25	27
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1729:	151	201	82	15	14	10	9	17
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1777:	8	5	11	5	5	5	10	9
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1809:	8	11	6	8	3	12	9	5
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1825:	4	7	3	8	7	9	9	3
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1841:	10	5	7	5	12	48	108	126
1849:	46	13	9	12	11	5	3	10
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1873:	13	26	15	3	5	7	8	6
1881:	7	6	5	9	11	12	7	7
1889:	11	17	13	8	4	7	10	15
1897:	14	9	11	9	2	4	11	3
1905:	7	4	7	7	4	11	4	6
1913:	5	5	3	9	6	4	7	5
1921:	4	5	10	11	9	9	5	7
1929:	9	6	7	7	11	8	8	13
1937:	17	9	7	6	7	7	10	3
1945:	4	10	6	7	9	8	5	5
1953:	5	7	12	11	11	8	2	4
1961:	6	5	3	5	3	5	5	8
1969:	9	8	5	7	3	4	10	7
1977:	3	6	2	1	5	2	4	4
1985:	7	6	9	5	6	5	2	8
1993:	4	6	5	4	4	4	5	5
2001:	4	5	4	4	10	6	4	5
2009:	7	12	11	6	1	8	4	7
2017:	9	12	7	6	6	5	9	3
2025:	4	4	4	7	1	5	3	5
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2041:	6	10	4	0	3	4	7	5
2049:	4	8	6	4	9	8	5	3
2057:	2	6	1	2	3	1	11	7
2065:	4	4	4	4	2	2	5	1
2073:	3	4	5	0	4	8	4	3
2081:	0	1	4	1	8	2	4	6
2089:	6	7	4	1	4	0	6	4
2097:	1	5	1	1	5	1	4	3
2105:	6	3	3	2	7	6	4	5
2113:	2	2	2	8	22	62	45	18
2121:	3	3	3	3	2	3	3	2
2129:	2	2	1	3	1	4	2	4
2137:	3	0	3	4	2	2	1	1
2145:	2	1	4	4	5	1	1	6
2153:	3	3	3	3	3	2	4	3
2161:	3	1	1	1	0	1	2	1
2169:	4	1	2	1	2	3	3	4
2177:	2	5	0	4	3	4	0	3
2185:	0	2	2	1	5	5	2	2
2193:	3	4	3	4	1	2	2	7
2201:	4	43	157	199	156	48	15	8
2209:	5	5	2	1	3	4	5	3
2217:	7	3	0	2	1	0	0	0
2225:	4	1	1	2	2	0	1	1
2233:	0	2	0	1	0	2	4	4
2241:	0	3	4	1	0	0	1	2
2249:	1	0	2	1	1	2	2	1
2257:	2	2	1	2	1	5	0	4
2265:	1	3	2	1	2	3	1	6
2273:	2	3	1	1	3	1	1	3
2281:	0	1	1	2	1	1	1	1
2289:	2	0	5	8	18	11	6	2
2297:	1	0	0	1	3	3	1	1
2305:	0	2	1	0	1	2	0	0
2313:	4	3	0	2	0	0	1	2
2321:	3	3	1	2	2	0	1	3
2329:	1	3	0	2	2	2	0	0
2337:	1	0	4	1	1	1	2	2
2345:	0	0	1	0	1	2	0	0

2353:	3	2	1	1	3	2	4	1
2361:	0	0	2	1	1	0	1	2
2369:	0	2	2	3	3	0	1	1
2377:	0	1	0	0	1	1	1	1
2385:	0	0	1	1	1	1	0	0
2393:	0	1	3	1	1	1	0	1
2401:	0	1	1	1	1	0	1	1
2409:	0	1	0	0	0	0	1	0
2417:	1	3	0	4	0	1	1	1
2425:	0	0	0	0	4	1	0	1
2433:	0	0	1	0	0	3	1	0
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2449:	28	6	2	2	3	2	0	1
2457:	0	0	1	1	0	2	3	0
2465:	1	0	1	0	0	1	0	2
2473:	0	0	0	0	1	1	2	3
2481:	1	1	2	2	1	3	0	0
2489:	0	1	0	2	0	0	1	2
2497:	0	0	0	2	0	1	0	1
2505:	2	0	1	0	1	0	1	0
2513:	0	0	2	0	0	1	1	1
2521:	2	0	0	0	0	1	0	0
2529:	0	2	1	1	0	0	0	0
2537:	0	0	0	0	0	1	0	0
2545:	0	0	0	0	0	0	0	3
2553:	1	0	0	1	0	0	0	0
2561:	0	0	0	2	0	0	0	0
2569:	0	0	0	0	0	0	0	2
2577:	0	1	0	2	1	0	0	1
2585:	1	0	1	1	2	0	2	0
2593:	1	0	0	0	0	0	0	1
2601:	0	0	0	0	0	0	1	0
2609:	2	1	2	2	8	14	19	7
2617:	1	0	0	1	0	0	0	1
2625:	1	0	0	0	0	0	1	1
2633:	0	1	0	0	0	0	0	0
2641:	1	1	0	0	2	0	0	0
2649:	0	0	1	0	0	0	1	0
2657:	0	0	1	0	0	0	0	0
2665:	0	0	0	0	0	0	0	0
2673:	2	0	1	0	0	0	0	0
2681:	0	0	1	1	0	0	1	0
2689:	1	0	1	0	2	2	3	1
2697:	0	1	0	0	0	0	0	0
2705:	1	0	0	1	1	3	0	2
2713:	1	0	0	0	0	0	0	0
2721:	1	3	2	0	0	1	0	0
2729:	1	1	0	0	1	0	0	0
2737:	0	0	1	0	0	0	0	0
2745:	0	0	1	0	0	1	0	0
2753:	1	1	0	0	0	1	0	1
2761:	0	0	0	0	2	0	0	0
2769:	1	0	1	0	0	0	0	1
2777:	0	0	1	1	0	0	0	0
2785:	0	1	0	0	0	0	3	0
2793:	0	0	0	1	0	0	0	0
2801:	0	0	0	1	0	0	0	2
2809:	0	0	1	0	0	0	0	0
2817:	1	0	1	0	0	1	1	0
2825:	1	0	0	0	1	1	0	0

2833:	0	0	1	0	0	0	0	0	0
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2849:	0	0	1	1	0	2	0	0	0
2857:	0	1	1	0	0	0	1	0	0
2865:	1	0	0	0	1	0	1	0	0
2873:	0	0	0	0	1	0	0	0	0
2881:	0	0	0	0	0	0	0	0	0
2889:	0	0	0	0	1	0	1	1	1
2897:	0	1	0	0	0	0	0	0	0
2905:	0	0	0	0	0	1	0	1	1
2913:	0	0	0	0	0	1	0	0	0
2921:	0	1	0	0	0	1	0	0	0
2929:	0	0	0	0	0	0	1	0	0
2937:	1	0	0	0	0	0	0	0	0
2945:	0	0	0	0	0	0	0	0	1
2953:	0	1	0	0	0	0	1	0	0
2961:	0	0	1	0	0	1	0	0	0
2969:	0	0	2	1	0	1	0	0	0
2977:	1	1	1	0	0	0	0	0	0
2985:	0	0	2	0	1	0	0	0	0
2993:	0	0	0	0	1	0	1	0	0
3001:	0	1	0	0	2	0	0	1	1
3009:	0	1	0	1	0	1	0	0	0
3017:	2	0	0	0	1	0	0	0	0
3025:	1	0	0	0	1	0	0	0	0
3033:	2	1	0	0	0	0	0	0	0
3041:	0	1	0	0	1	0	0	0	0
3049:	0	0	1	0	2	1	0	0	0
3057:	0	0	1	0	0	0	0	0	0
3065:	0	0	0	0	0	0	0	0	0
3073:	1	0	0	0	0	0	0	0	0
3081:	0	0	0	1	0	0	1	0	0
3089:	0	0	0	0	0	0	0	0	0
3097:	0	0	0	0	0	2	0	0	0
3105:	0	1	0	0	0	1	0	0	0
3113:	0	0	0	0	0	0	0	0	0
3121:	0	0	2	0	1	1	1	0	0
3129:	0	0	1	0	0	0	0	0	0
3137:	1	0	1	1	0	0	0	0	0
3145:	0	1	1	0	0	0	0	0	0
3153:	0	0	0	0	0	0	0	1	1
3161:	0	0	0	0	0	0	0	0	0
3169:	0	1	1	0	0	0	0	0	0
3177:	0	0	0	1	1	1	0	0	0
3185:	0	0	0	1	1	0	0	0	0
3193:	0	0	0	0	0	0	2	0	0
3201:	0	0	1	0	0	1	0	0	0
3209:	1	0	0	0	0	0	0	0	0
3217:	0	0	0	0	0	0	0	0	0
3225:	0	0	0	1	1	1	0	0	0
3233:	0	0	0	1	0	0	0	0	0
3241:	0	0	0	0	0	0	2	0	0
3249:	0	0	0	0	1	0	0	0	0
3257:	0	0	1	0	0	0	0	0	0
3265:	0	0	0	0	0	1	1	0	0
3273:	0	0	0	0	1	0	1	0	0
3281:	0	0	1	0	0	0	0	0	0
3289:	0	0	0	0	0	0	1	0	0
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3313:	0	0	0	0	0	0	0	0	0
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3329:	0	0	0	0	1	0	0	0	0
3337:	0	0	0	0	0	0	0	0	0
3345:	0	0	0	1	0	0	0	0	0
3353:	0	1	1	0	0	0	0	0	0
3361:	1	0	0	0	0	0	0	0	0
3369:	0	0	0	0	0	0	0	0	0
3377:	0	0	0	0	0	0	0	0	0
3385:	0	0	0	0	2	0	0	0	0
3393:	1	1	0	0	0	0	0	0	0
3401:	0	0	0	0	0	0	0	0	0
3409:	0	1	0	0	0	1	0	0	0
3417:	0	0	0	1	0	0	0	0	1
3425:	0	0	0	0	0	0	0	0	0
3433:	1	0	1	0	0	0	0	0	0
3441:	0	0	1	0	1	0	0	0	1
3449:	0	0	0	0	0	0	0	0	0
3457:	0	2	0	0	0	0	0	0	0
3465:	0	0	0	0	0	1	0	0	0
3473:	0	0	0	0	1	1	0	0	0
3481:	0	1	0	0	1	1	0	0	0
3489:	0	0	1	0	0	0	0	0	0
3497:	0	0	1	0	0	0	0	0	2
3505:	0	0	0	0	0	1	0	0	0
3513:	0	0	1	0	0	0	0	0	0
3521:	0	0	0	0	0	0	0	0	0
3529:	0	0	0	0	0	0	0	0	0
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3545:	0	0	0	0	0	0	0	0	0
3553:	0	0	0	0	0	0	0	0	0
3561:	0	0	0	0	0	0	0	0	0
3569:	0	0	0	0	0	0	1	0	0
3577:	0	0	0	0	0	0	0	0	0
3585:	0	0	0	0	0	0	0	0	0
3593:	0	1	0	0	0	0	0	0	0
3601:	1	1	0	0	1	0	0	0	0
3609:	0	0	0	1	0	0	0	0	0
3617:	0	0	0	0	0	1	0	0	0
3625:	0	0	1	0	0	0	0	0	0
3633:	0	0	0	0	0	0	0	0	0
3641:	0	1	0	1	0	0	0	0	1
3649:	0	1	0	0	0	0	0	0	0
3657:	0	0	0	0	1	0	0	0	0
3665:	1	0	0	0	0	0	0	0	0
3673:	0	1	0	0	1	0	0	0	0
3681:	0	0	0	0	1	1	0	0	0
3689:	0	0	0	0	0	0	1	0	0
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3713:	0	0	0	0	0	2	0	0	0
3721:	1	1	0	0	1	0	0	0	0
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3737:	0	0	0	0	1	0	0	0	0
3745:	0	0	0	0	0	0	0	0	0
3753:	0	0	0	0	1	0	0	0	0
3761:	0	0	0	0	0	0	1	0	0
3769:	0	0	1	0	0	0	0	0	0
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3785:	1	1	0	0	0	0	0	0	1

3793:	0	0	0	0	1	0	0	0
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3809:	0	0	0	0	0	0	0	0
3817:	0	0	0	0	0	0	0	1
3825:	0	0	0	0	0	0	0	0
3833:	0	0	0	0	0	0	0	0
3841:	0	0	0	0	0	0	0	0
3849:	0	0	0	0	0	0	1	0
3857:	0	0	0	1	0	1	0	0
3865:	0	0	0	0	0	0	0	0
3873:	0	0	0	0	1	0	0	0
3881:	0	0	0	0	0	0	0	0
3889:	0	0	0	1	1	0	0	0
3897:	0	0	0	0	0	0	0	0
3905:	0	0	1	0	0	0	0	0
3913:	0	0	0	0	0	0	0	0
3921:	0	0	0	0	0	0	0	0
3929:	0	0	0	0	0	0	0	0
3937:	0	0	0	0	0	0	0	0
3945:	0	0	0	0	0	0	0	1
3953:	0	0	0	0	0	0	0	0
3961:	0	2	1	0	0	0	0	0
3969:	1	0	0	0	0	0	0	0
3977:	0	0	0	0	0	0	0	0
3985:	0	0	0	0	0	0	0	0
3993:	0	0	0	0	0	0	0	0
4001:	0	0	0	0	0	0	0	0
4009:	0	0	0	0	0	0	0	0
4017:	0	0	0	0	0	0	0	0
4025:	0	0	1	0	0	0	0	0
4033:	0	0	0	0	0	0	0	0
4041:	0	0	0	0	0	0	0	0
4049:	0	0	0	0	0	0	0	0
4057:	0	0	0	1	0	0	0	0
4065:	0	0	1	0	0	0	0	1
4073:	0	0	0	1	0	0	0	0
4081:	0	0	0	0	0	0	1	0
4089:	1	0	0	0	0	0	0	0

Sample ID : 1111068-16

Acquisition date : 11-DEC-2011 16:46:09

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12/11/11

VAX/VMS Peak Search Report Generated 11-DEC-2011 17:47:13.98

Configuration : DKA100: [GAMMA.SCUSR.ARCHIVE] SMP_111106816_GE2_GAS1102_172300.
 Analyses by : PEAK V16.9 ENBACK V1.6 PEAKEFF V2.2
 Client ID : S12-56-31-111107
 Deposition Date :
 Sample Date : 7-NOV-2011 00:00:00. Acquisition date : 11-DEC-2011 16:46:09
 Sample ID : 1111068-16 Sample Quantity : 4.13940E+02 GRAM
 Sample type : SOIL Sample Geometry : 0
 Detector name : GE2 Detector Geometry: GAS-1102
 Elapsed live time: 0 01:00:00.00 Elapsed real time: 0 01:00:09.71 0.3%
 Start channel : 5 End channel : 4096
 Sensitivity : 2.40000 Gaussian : 15.00000
 Critical level : Yes

Post-NID Peak Search Report

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides
0	46.72*	2434	4331	1.42	46.67	44	5	9.1		PB-210
0	53.63*	578	6416	1.60	53.59	51	6	44.6		
0	63.37*	2159	8730	1.88	63.33	61	6	14.4		TH-234
9	68.22	846	3031	2.72	68.18	67	16	16.5	1.06E+03	
9	71.65	396	8909	1.92	71.61	67	16	76.8		
9	76.60*	21287	12710	3.11	76.56	67	16	2.3		
0	112.52	569	6304	1.74	112.49	109	8	49.1		
0	144.24*	606	5953	1.13	144.23	141	7	43.1		U-235 CE-141
0	154.29	450	5046	1.96	154.28	152	6	50.9		
0	163.56*	205	3770	2.24	163.55	162	5	91.2		U-235
0	186.21*	5062	6101	1.56	186.21	182	9	6.3		RA-226
1	236.13	461	2406	1.58	236.15	233	12	32.9	2.39E+01	
1	239.13*	602	2332	1.70	239.15	233	12	26.2		PB-212
1	242.13*	5420	1756	1.40	242.15	233	12	3.5		RA-224
5	255.90	276	2784	2.22	255.93	253	9	65.6	3.01E+00	
5	259.03	384	1579	1.43	259.06	253	9	31.3		
7	270.41	1011	2158	2.78	270.44	267	11	15.7	2.67E+00	
7	274.85	333	2033	2.15	274.88	267	11	45.3		
0	285.50	147	2044	3.04	285.54	283	6	99.0		
0	295.32*	12170	2592	1.81	295.36	291	8	2.3		PB-214
0	314.74	224	2100	4.56	314.79	311	8	71.9		
0	324.06	165	1346	1.77	324.12	322	5	68.4		RA-223
0	330.12	143	1424	1.29	330.18	328	5	80.5		
2	351.99*	20383	954	1.46	352.05	346	17	1.5	1.29E+00	PB-214
2	356.28	126	1231	2.01	356.35	346	17	138.4		
0	388.58	209	2081	2.94	388.65	384	9	80.1		
0	405.08	158	1148	1.78	405.17	404	5	66.3		
0	454.58	159	1186	2.13	454.68	451	8	76.6		
0	462.02	235	922	3.62	462.12	459	7	45.0		
0	480.32	190	1523	2.31	480.43	474	11	80.8		
0	487.37*	139	900	1.34	487.49	484	7	73.7		
0	510.76*	282	1129	2.97	510.88	506	10	46.7		
0	533.20	94	650	3.68	533.33	531	6	87.8		
2	579.70	151	697	2.22	579.85	577	10	61.3	8.81E+00	
2	583.15*	215	586	1.91	583.30	577	10	39.0		TL-208

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12/12/11

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides
0	609.27*	15127	1073	1.99	609.43	603	12	1.8		BI-214
0	627.15	54	415	3.41	627.31	625		6121.9		
0	665.56	452	783	2.11	665.74	661	10	25.1		
3	703.44	198	551	2.55	703.63	695	17	43.5	1.34E+00	
0	719.88	104	575	2.25	720.08	717	8	82.3		
0	742.59	77	570	2.69	742.80	739		8109.9		
0	768.22	1529	685	2.14	768.44	763	11	8.4		
0	785.53*	488	706	2.05	785.76	780	12	23.6		
0	805.94	455	670	1.97	806.18	801	11	24.0		
0	820.65	93	363	3.59	820.89	819	6	68.2		
5	836.09	47	133	1.37	836.34	835	8	65.6	3.15E+00	MN-54
5	839.19	217	390	1.93	839.44	835	8	31.7		
0	911.94*	156	678	1.67	912.21	907	10	64.8		
0	933.85	815	610	1.92	934.13	929	11	13.7		
0	943.89	65	363	3.52	944.17	942	7	99.8		
0	963.53	97	484	2.09	963.82	960	8	81.1		
0	1001.09*	157	436	2.18	1001.39	998	8	49.0		PA-234M
0	1023.11	98	348	5.85	1023.42	1019	9	71.7		
0	1031.98	80	358	5.73	1032.29	1029	9	88.2		
0	1052.08	96	537	5.62	1052.41	1046	12	98.9		
0	1120.15*	3327	429	2.20	1120.50	1116	10	4.2		BI-214
0	1142.45	51	224	3.86	1142.81	1140	6	98.1		
0	1155.12	406	413	2.07	1155.48	1151	10	21.2		
0	1206.70	100	337	2.12	1207.08	1203	9	68.8		
0	1237.96*	1175	351	2.24	1238.35	1234	10	8.4		
0	1253.62	123	305	4.37	1254.02	1249	10	56.3		
0	1280.66	337	277	2.28	1281.08	1277	9	20.9		
2	1377.40	837	190	2.39	1377.84	1370	23	8.8	1.82E+00	
2	1384.99*	181	214	2.74	1385.44	1370	23	31.6		
2	1401.20*	289	242	2.57	1401.65	1395	19	21.8	9.70E-01	
2	1407.72	443	206	2.47	1408.18	1395	19	14.3		
0	1424.96	67	245	5.03	1425.43	1421	9	87.8		
0	1460.63*	781	407	2.59	1461.11	1455	13	12.9		K-40
0	1508.98	367	374	2.39	1509.48	1505	10	22.3		
1	1538.72	79	224	2.57	1539.23	1533	16	69.2	1.30E+00	
1	1542.70	108	201	2.57	1543.21	1533	16	52.1		
1	1582.80	165	166	3.13	1583.32	1579	25	32.0	1.57E+00	
1	1594.25	51	174	3.14	1594.78	1579	25	99.5		
1	1598.69	77	177	3.14	1599.22	1579	25	67.0		
0	1660.64	181	152	2.14	1661.20	1655	12	31.2		
0	1683.23	40	125	1.53	1683.80	1679		10110.9		
0	1729.17	654	77	2.72	1729.75	1724	11	9.4		
0	1764.11*	2608	113	2.70	1764.70	1757	15	4.3		BI-214
3	1834.16	18	36	3.27	1834.78	1832		28117.1	2.29E+00	
3	1838.07	44	43	2.24	1838.69	1832	28	58.4		
3	1847.03	381	53	2.66	1847.66	1832	28	12.3		
0	1875.81	63	108	3.86	1876.44	1870	16	78.5		
0	1968.08*	36	51	7.10	1968.75	1963	11	86.0		
0	2010.59	17	33	3.22	2011.28	2007		7125.7		
0	2118.05	180	21	2.45	2118.78	2114	11	18.0		
0	2143.32	12	12	2.83	2144.05	2140		7113.7		

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides
0	2203.44*	708	38	2.66	2204.19	2197	13	8.4		BI-214
0	2292.34	53	10	2.90	2293.13	2287	13	36.7		
0	2330.55	9	7	3.11	2331.35	2325	10	136.7		
0	2446.93	213	0	2.35	2447.78	2443	10	13.7		
0	2613.55*	63	0	2.80	2614.46	2609	12	26.9		TL-208

Total number of lines in spectrum 91
 Number of unidentified lines 51
 Number of lines tentatively identified by NID 40 43.96%

Nuclide Type : NATURAL

Nuclide	Hlife	Decay	Wtd Mean		Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
			Uncorrected pCi/GRAM	Decay Corr pCi/GRAM			
K-40	1.28E+09Y	1.00	2.899E+01	2.899E+01	0.491E+01	16.92	
TL-208	1.41E+10Y	1.00	1.028E+00	1.028E+00	0.246E+00	23.98	
PB-210	22.26Y	1.00	4.945E+01	4.960E+01	0.645E+01	13.00	
PB-212	1.41E+10Y	1.00	1.348E+00	1.348E+00	0.374E+00	27.74	
BI-214	1602.00Y	1.00	7.032E+01	7.032E+01	0.392E+01	5.57	
PB-214	1602.00Y	1.00	7.249E+01	7.249E+01	0.494E+01	6.81	
RA-223	3.28E+04Y	1.00	5.244E+00	5.244E+00	3.623E+00	69.08	
RA-224	1.41E+10Y	1.00	1.378E+02	1.378E+02	0.135E+02	9.79	
RA-226	1602.00Y	1.00	1.333E+02	1.333E+02	2.443E+02	183.25	
PA-234M	4.47E+09Y	1.00	5.168E+01	5.168E+01	2.584E+01	50.01	
TH-234	4.47E+09Y	1.00	4.095E+01	4.095E+01	0.700E+01	17.09	
U-235	7.04E+08Y	1.00	3.532E+00	3.532E+00	3.291E+00	93.17	
Total Activity :			5.962E+02	5.963E+02			

Nuclide Type : ACTIVATION

Nuclide	Hlife	Decay	Wtd Mean		Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
			Uncorrected pCi/GRAM	Decay Corr pCi/GRAM			
MN-54	312.70D	1.08	1.226E-01	1.324E-01	0.879E-01	66.35	
Total Activity :			1.226E-01	1.324E-01			

Nuclide Type : FISSION

Nuclide	Hlife	Decay	Wtd Mean		Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
			Uncorrected pCi/GRAM	Decay Corr pCi/GRAM			
CE-141	32.50D	2.10	9.660E-01	2.026E+00	1.022E+00	50.43	
Total Activity :			9.660E-01	2.026E+00			

Grand Total Activity : 5.973E+02 5.985E+02

Flags: "K" = Keyline not found "M" = Manually accepted
 "E" = Manually edited "A" = Nuclide specific abn. limit

Nuclide Type: NATURAL

Nuclide	Energy	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error	Status
K-40	1460.81	10.67*	4.582E-01	2.899E+01	2.899E+01	16.92	OK
Final Mean for 1 Valid Peaks = 2.899E+01 +/- 4.905E+00 (16.92%)							
TL-208	583.14	30.22*	9.242E-01	1.399E+00	1.399E+00	40.29	OK
	860.37	4.48	6.742E-01	----- Line Not Found		-----	Absent
	2614.66	35.85	3.402E-01	9.399E-01	9.399E-01	29.16	OK
Final Mean for 2 Valid Peaks = 1.028E+00 +/- 2.465E-01 (23.98%)							
PB-210	46.50	4.05*	2.204E+00	4.945E+01	4.960E+01	13.00	OK
Final Mean for 1 Valid Peaks = 4.960E+01 +/- 6.447E+00 (13.00%)							
PB-212	238.63	44.60*	1.817E+00	1.348E+00	1.348E+00	27.74	OK
	300.09	3.41	1.555E+00	----- Line Not Found		-----	Absent
Final Mean for 1 Valid Peaks = 1.348E+00 +/- 3.738E-01 (27.74%)							
BI-214	609.31	46.30*	8.915E-01	6.647E+01	6.647E+01	10.00	OK
	1120.29	15.10	5.508E-01	7.255E+01	7.255E+01	10.94	OK
	1764.49	15.80	4.084E-01	7.332E+01	7.332E+01	10.93	OK
	2204.22	4.98	3.644E-01	7.078E+01	7.078E+01	13.48	OK
Final Mean for 4 Valid Peaks = 7.032E+01 +/- 3.920E+00 (5.57%)							
PB-214	295.21	19.19	1.574E+00	7.309E+01	7.309E+01	9.54	OK
	351.92	37.19*	1.383E+00	7.188E+01	7.189E+01	9.74	OK
Final Mean for 2 Valid Peaks = 7.249E+01 +/- 4.940E+00 (6.81%)							
RA-223	323.87	3.88*	1.472E+00	5.244E+00	5.244E+00	69.08	OK
Final Mean for 1 Valid Peaks = 5.244E+00 +/- 3.623E+00 (69.08%)							
RA-224	240.98	3.95*	1.806E+00	1.378E+02	1.378E+02	9.79	OK
Final Mean for 1 Valid Peaks = 1.378E+02 +/- 1.350E+01 (9.79%)							
RA-226	186.21	3.28*	2.099E+00	1.333E+02	1.333E+02	183.25	OK
Final Mean for 1 Valid Peaks = 1.333E+02 +/- 2.443E+02 (183.25%)							
PA-234M	1001.03	0.92*	5.993E-01	5.168E+01	5.168E+01	50.01	OK
Final Mean for 1 Valid Peaks = 5.168E+01 +/- 2.584E+01 (50.01%)							
TH-234	63.29	3.80*	2.516E+00	4.095E+01	4.095E+01	17.09	OK
Final Mean for 1 Valid Peaks = 4.095E+01 +/- 6.998E+00 (17.09%)							

Nuclide Type: NATURAL

Nuclide	Energy	%Abn	%Eff	Uncorrected Decay Corr 2-Sigma		%Error	Status
				pCi/GRAM	pCi/GRAM		
U-235	143.76	10.50*	2.361E+00	4.433E+00	4.433E+00	46.59	<WM Interf
	163.35	4.70	2.238E+00	3.532E+00	3.532E+00	93.17	OK
	205.31	4.70	1.990E+00	-----	Line Not Found	-----	Absent

Final Mean for 1 Valid Peaks = 3.532E+00+/- 3.291E+00 (93.17%)

Nuclide Type: ACTIVATION

Nuclide	Energy	%Abn	%Eff	Uncorrected Decay Corr 2-Sigma		%Error	Status
				pCi/GRAM	pCi/GRAM		
MN-54	834.83	99.97*	6.905E-01	1.226E-01	1.324E-01	66.35	OK

Final Mean for 1 Valid Peaks = 1.324E-01+/- 8.787E-02 (66.35%)

Nuclide Type: FISSION

Nuclide	Energy	%Abn	%Eff	Uncorrected Decay Corr 2-Sigma		%Error	Status
				pCi/GRAM	pCi/GRAM		
CE-141	145.44	48.40*	2.351E+00	9.660E-01	2.026E+00	50.43	OK

Final Mean for 1 Valid Peaks = 2.026E+00+/- 1.022E+00 (50.43%)

Flag: "*" = Keyline

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.899E+01	4.905E+00	2.685E+00	2.753E-01	10.795
MN-54	1.324E-01	8.787E-02	2.756E-01	2.474E-02	0.480
CE-141	2.026E+00	1.022E+00	9.592E-01	2.488E-01	2.112
TL-208	1.028E+00	2.465E-01	7.273E-01	6.618E-02	1.413
PB-210	4.960E+01	6.447E+00	5.566E+00	4.666E-01	8.910
PB-212	1.348E+00	3.738E-01	4.927E-01	4.053E-02	2.735
BI-214	7.032E+01	3.920E+00	4.761E-01	4.272E-02	147.717
PB-214	7.249E+01	4.940E+00	5.747E-01	5.033E-02	126.144
RA-223	5.244E+00	3.623E+00	5.491E+00	4.707E-01	0.955
RA-224	1.378E+02	1.350E+01	5.602E+00	4.610E-01	24.605
RA-226	1.333E+02	2.443E+02	6.800E+00	1.245E+01	19.607
PA-234M	5.168E+01	2.584E+01	3.039E+01	2.790E+00	1.700
TH-234	4.095E+01	6.998E+00	6.622E+00	5.515E-01	6.184
U-235	3.532E+00	3.291E+00	2.082E+00	3.605E-01	1.696

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	2.384E+00		2.143E+00	3.431E+00	3.173E-01	0.695
NA-22	1.157E-01		1.735E-01	2.681E-01	2.643E-02	0.432
AL-26	3.994E-02		9.436E-02	1.763E-01	1.594E-02	0.226
TI-44	6.356E-01	+	1.235E-01	2.819E-01	2.643E-02	2.255
SC-46	3.188E-02		2.111E-01	3.578E-01	3.208E-02	0.089
V-48	-5.529E-01		7.294E-01	1.186E+00	1.086E-01	-0.466
CR-51	-6.673E-01		4.011E+00	5.077E+00	4.572E-01	-0.131
CO-56	1.749E-01		2.267E-01	3.543E-01	3.181E-02	0.494
CO-57	-6.776E-02		1.539E-01	2.508E-01	2.127E-02	-0.270
CO-58	-1.103E-01		2.323E-01	3.446E-01	3.095E-02	-0.320
FE-59	1.583E-01		4.998E-01	8.452E-01	8.393E-02	0.187
CO-60	9.694E-02		1.753E-01	2.988E-01	2.771E-02	0.324
ZN-65	1.578E+00		4.734E-01	7.690E-01	7.143E-02	2.052
SE-75	-7.498E-02		3.402E-01	4.345E-01	3.600E-02	-0.173
RB-82	2.245E+00		3.558E+00	4.501E+00	4.017E-01	0.499
RB-83	2.124E-01		3.733E-01	6.239E-01	9.979E-02	0.340
KR-85	3.999E+01		3.306E+01	5.294E+01	4.902E+00	0.755
SR-85	2.519E-01		2.082E-01	3.334E-01	3.088E-02	0.755
Y-88	1.882E-01		1.413E-01	2.732E-01	2.439E-02	0.689
NB-93M	2.370E+01		9.090E+00	9.901E+00	2.981E+00	2.394
NB-94	5.362E-03		1.575E-01	2.662E-01	2.389E-02	0.020
NB-95	4.942E+00		6.331E-01	8.595E-01	7.662E-02	5.750
ZR-95	-1.948E-01		3.718E-01	5.910E-01	5.757E-02	-0.330
RU-103	-8.873E-02		2.498E-01	4.280E-01	6.232E-02	-0.207
RU-106	-8.811E-01		1.419E+00	2.125E+00	2.878E-01	-0.415
AG-108M	1.221E-01		1.714E-01	2.691E-01	2.372E-02	0.454
CD-109	3.017E+01		6.864E+00	8.478E+00	1.308E+00	3.558
AG-110M	3.179E-02		1.678E-01	2.601E-01	2.250E-02	0.122
SN-113	2.810E-01		2.750E-01	4.404E-01	4.054E-02	0.638

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TE123M	-3.291E-02		2.471E-01	3.245E-01	2.611E-02	-0.101
SB-124	-7.302E-02		2.267E-01	3.452E-01	3.110E-02	-0.212
I-125	-6.035E+00		3.422E+00	5.510E+00	5.651E-01	-1.095
SB-125	1.810E-01		4.868E-01	8.496E-01	7.882E-02	0.213
SB-126	3.129E+00	+	2.594E+00	3.289E+00	2.897E-01	0.951
SN-126	2.172E+00		5.611E-01	7.910E-01	1.118E-01	2.746
I-129	6.269E-02		2.961E-01	5.050E-01	6.190E-02	0.124
I-131	6.767E-01		3.235E+00	5.129E+00	4.527E-01	0.132
BA-133	2.802E-01	+	3.897E-01	3.638E-01	4.841E-02	0.770
CS-134	3.264E-01		1.695E-01	2.732E-01	2.464E-02	1.195
CS-135	3.423E+00		1.011E+00	1.517E+00	1.247E-01	2.257
CS-136	6.385E-01		1.368E+00	2.095E+00	1.989E-01	0.305
CS-137	1.307E-01		1.780E-01	2.808E-01	2.426E-02	0.465
LA-138	2.021E-01		2.651E-01	4.517E-01	4.553E-02	0.447
CE-139	2.541E-01		2.180E-01	3.307E-01	2.633E-02	0.768
BA-140	7.686E-01		3.764E+00	5.863E+00	1.953E+00	0.131
LA-140	2.815E+00		1.191E+00	2.231E+00	2.177E-01	1.262
CE-144	1.106E+00		1.285E+00	2.116E+00	1.764E-01	0.523
PM-144	6.947E-02		1.577E-01	2.456E-01	2.151E-02	0.283
PM-145	-3.828E-01		6.979E-01	1.085E+00	7.085E-01	-0.353
PM-146	6.464E-01	+	4.993E-01	5.901E-01	5.430E-02	1.095
ND-147	6.480E+00		9.292E+00	1.475E+01	1.363E+00	0.439
EU-152	1.152E+01	+	2.211E+00	3.115E+00	3.779E-01	3.698
GD-153	-5.969E-01		5.785E-01	9.341E-01	1.089E-01	-0.639
EU-154	3.126E-01		4.795E-01	7.403E-01	7.296E-02	0.422
EU-155	5.211E+00		9.511E-01	9.705E-01	1.345E-01	5.369
EU-156	-2.180E-01		7.522E+00	1.141E+01	2.621E+00	-0.019
HO-166M	1.527E-01		3.406E-01	4.261E-01	3.743E-02	0.358
HF-172	-3.749E-02		1.113E+00	1.823E+00	1.536E-01	-0.021
LU-172	5.052E-01		9.449E+00	1.583E+01	1.468E+00	0.032
LU-173	3.794E+00		8.048E-01	1.257E+00	1.033E-01	3.017
HF-175	-9.639E-02		2.651E-01	3.806E-01	3.313E-02	-0.253
LU-176	-1.702E-02		1.540E-01	2.242E-01	1.892E-02	-0.076
TA-182	3.876E+01	+	4.239E+00	3.269E+00	3.034E-01	11.859
IR-192	2.393E-01		4.197E-01	6.132E-01	5.661E-02	0.390
HG-203	2.726E-01		3.540E-01	4.639E-01	3.923E-02	0.588
BI-207	1.411E-02		1.311E-01	2.263E-01	2.071E-02	0.062
BI-210M	8.218E-02		3.263E-01	4.821E-01	3.967E-02	0.170
PB-211	7.983E+00	+	5.351E+00	8.854E+00	7.985E-01	0.902
BI-212	-5.117E-01		1.318E+00	1.978E+00	1.746E-01	-0.259
RN-219	2.165E+00		2.380E+00	3.795E+00	3.417E-01	0.570
RA-225	-1.727E+00		2.348E+00	3.633E+00	3.372E-01	-0.475
TH-227	3.971E+00	+	1.356E+00	2.111E+00	1.735E-01	1.881
AC-228	1.590E+00	+	1.042E+00	1.144E+00	1.028E-01	1.390
TH-230	1.621E+02	+	3.147E+01	7.177E+01	6.695E+00	2.259
PA-231	5.694E+00		6.408E+00	9.535E+00	8.015E-01	0.597
TH-231	2.908E-01		1.386E+00	2.346E+00	3.455E-01	0.124
PA-233	2.371E-01		8.972E-01	1.316E+00	2.949E-01	0.180

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PA-234	-3.084E-01		6.169E-01	1.002E+00	8.378E-02	-0.308
NP-237	1.262E+01		2.302E+00	2.349E+00	3.256E-01	5.371
AM-241	8.156E-01		4.930E-01	6.865E-01	5.135E-02	1.188
AM-243	7.687E+00		9.519E-01	5.835E-01	6.395E-02	13.175
CM-243	2.689E-01		1.040E+00	1.534E+00	1.258E-01	0.175

Total number of lines in spectrum 91
 Number of unidentified lines 51
 Number of lines tentatively identified by NID 40 43.96%

Nuclide Type : NATURAL

Nuclide	Hlife	Decay	Wtd Mean		Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
			Uncorrected pCi/GRAM	Decay Corr pCi/GRAM			
K-40	1.28E+09Y	1.00	2.899E+01	2.899E+01	0.491E+01	16.92	
TL-208	1.41E+10Y	1.00	1.028E+00	1.028E+00	0.246E+00	23.98	
PB-210	22.26Y	1.00	4.945E+01	4.960E+01	0.645E+01	13.00	
PB-212	1.41E+10Y	1.00	1.348E+00	1.348E+00	0.374E+00	27.74	
BI-214	1602.00Y	1.00	7.032E+01	7.032E+01	0.392E+01	5.57	
PB-214	1602.00Y	1.00	7.249E+01	7.249E+01	0.494E+01	6.81	
RA-223	3.28E+04Y	1.00	5.244E+00	5.244E+00	3.623E+00	69.08	
RA-224	1.41E+10Y	1.00	1.378E+02	1.378E+02	0.135E+02	9.79	
RA-226	1602.00Y	1.00	1.333E+02	1.333E+02	2.443E+02	183.25	
PA-234M	4.47E+09Y	1.00	5.168E+01	5.168E+01	2.584E+01	50.01	
TH-234	4.47E+09Y	1.00	4.095E+01	4.095E+01	0.700E+01	17.09	
U-235	7.04E+08Y	1.00	3.532E+00	3.532E+00	3.291E+00	93.17	
Total Activity :			5.962E+02	5.963E+02			

Nuclide Type : ACTIVATION

Nuclide	Hlife	Decay	Wtd Mean		Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
			Uncorrected pCi/GRAM	Decay Corr pCi/GRAM			
MN-54	312.70D	1.08	1.226E-01	1.324E-01	0.879E-01	66.35	
Total Activity :			1.226E-01	1.324E-01			

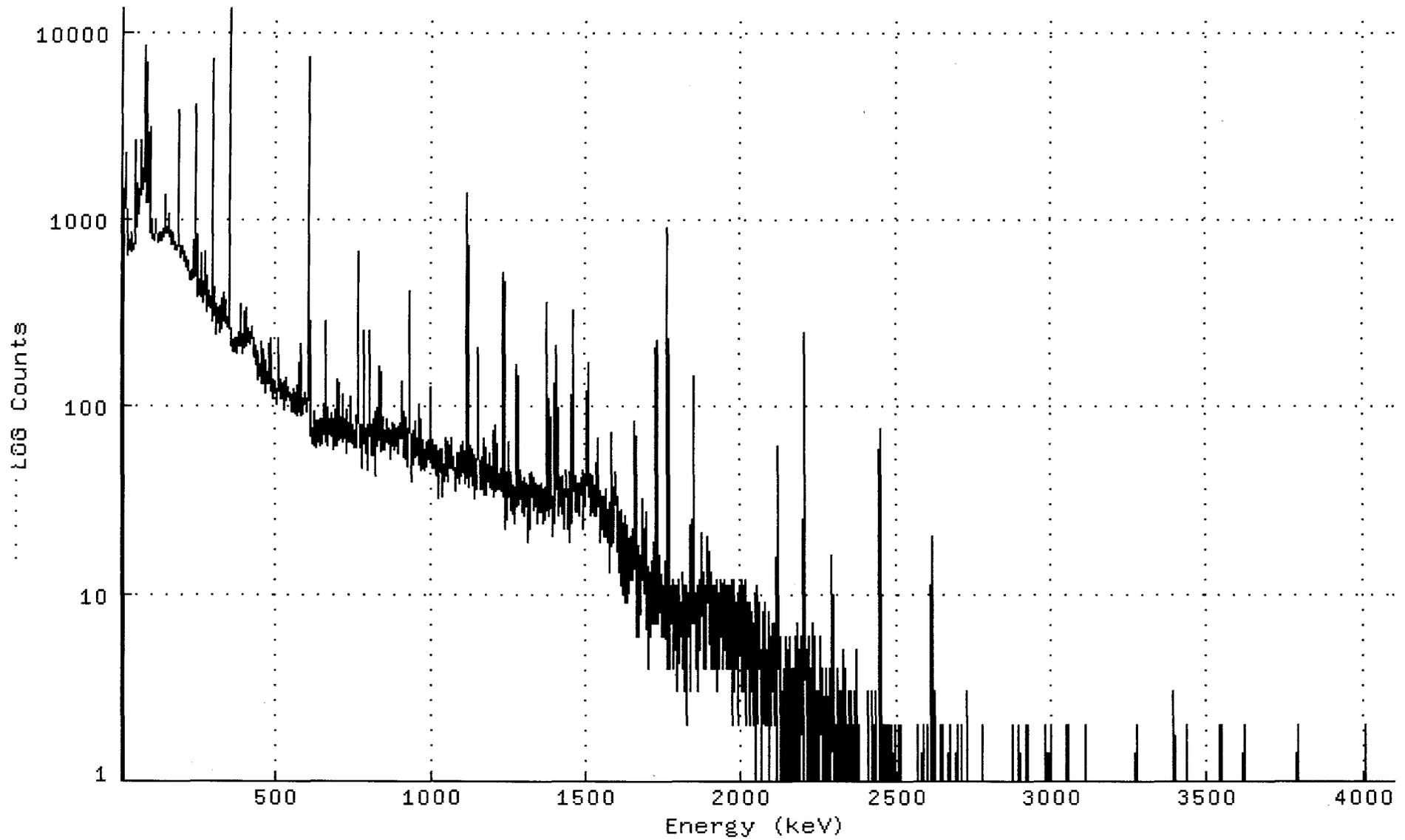
Nuclide Type : FISSION

Nuclide	Hlife	Decay	Wtd Mean		Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
			Uncorrected pCi/GRAM	Decay Corr pCi/GRAM			
CE-141	32.50D	2.10	9.660E-01	2.026E+00	1.022E+00	50.43	
Total Activity :			9.660E-01	2.026E+00			

Grand Total Activity : 5.973E+02 5.985E+02

Flags: "K" = Keyline not found "M" = Manually accepted
 "E" = Manually edited "A" = Nuclide specific abn. limit

Spectrum : DKA100:[GAMMA.SCUSR.ARCHIVE]SMP_111106816_GE2_GAS1102_172300.CNF;1
Title :
Sample Title: S12-56-31-111107
Start Time: 11-DEC-2011 16:46 Sample Time: 7-NOV-2011 00:00: Energy Offset: 6.87229E-02
Real Time : 0 01:00:09.71 Sample ID : 1111068-16 Energy Slope : 9.99625E-01
Live Time : 0 01:00:00.00 Sample Type: SOIL Energy Quad : 0.00000E+00



Channel Contents for DKA100: [GAMMA.SCUSR.ARCHIVE] SMP_111106816_GE2_GAS1102_1723

Channel

1:	0	0	0	0	0	0	0	35
9:	731	1156	1753	1700	1431	1306	2222	1305
17:	941	781	752	782	677	639	713	706
25:	709	716	722	764	688	702	702	829
33:	710	659	676	731	708	707	694	687
41:	754	778	804	823	840	1665	2594	899
49:	922	1077	1050	962	1507	1377	1058	1051
57:	1096	1208	1318	1334	1440	1455	2568	2594
65:	1457	1430	1624	1843	1598	1531	1622	1553
73:	1684	2339	6238	3027	8198	5500	1542	1735
81:	1769	1443	1213	2403	1471	1211	2844	2755
89:	1260	2029	1338	1722	3085	1403	1237	865
97:	795	966	935	784	850	777	772	780
105:	793	799	794	811	828	857	874	890
113:	993	855	802	774	754	805	801	766
121:	779	833	763	760	782	815	780	815
129:	767	795	795	847	808	826	886	832
137:	801	860	832	851	863	839	880	1331
145:	929	874	854	837	903	866	849	891
153:	862	1060	1016	872	795	847	855	785
161:	737	785	835	835	769	759	740	775
169:	729	708	729	743	753	747	685	690
177:	674	705	704	711	705	688	735	728
185:	1102	3736	2203	725	690	655	670	621
193:	697	685	642	716	651	690	663	669
201:	632	599	586	590	662	644	571	620
209:	627	599	594	568	524	523	525	533
217:	591	528	505	495	510	490	512	502
225:	470	488	528	508	527	473	493	506
233:	489	482	510	755	562	601	790	495
241:	918	3995	1726	396	423	463	378	447
249:	395	390	388	404	400	421	415	526
257:	449	468	642	480	380	404	386	356
265:	383	389	359	380	561	670	628	515
273:	391	431	488	358	344	317	392	320
281:	384	346	339	388	353	406	363	342
289:	337	340	338	331	365	925	6989	5117
297:	439	283	332	429	348	300	316	300
305:	347	267	306	247	298	271	240	301
313:	289	291	332	314	282	275	261	276
321:	287	246	313	376	318	258	284	260
329:	298	403	323	283	304	296	307	308
337:	299	366	331	274	314	285	296	261
345:	265	281	287	277	303	338	3391	13438
353:	4287	277	234	260	221	220	207	224
361:	206	194	208	222	209	225	219	217
369:	194	222	210	228	232	223	191	203
377:	220	198	236	230	208	225	246	216
385:	210	255	316	239	351	238	227	238
393:	225	203	190	211	227	248	205	211
401:	259	317	251	235	332	322	208	209
409:	234	244	217	251	222	258	242	232
417:	241	232	235	214	228	264	230	233
425:	258	233	241	224	199	200	200	185

433:	184	184	168	209	181	164	167	169
441:	163	181	139	168	196	181	147	152
449:	157	162	144	164	158	196	217	174
457:	161	131	158	133	197	199	184	169
465:	117	128	129	118	173	162	145	133
473:	148	145	144	153	132	134	169	213
481:	209	145	137	132	131	121	231	173
489:	129	124	124	117	125	137	110	131
497:	117	116	124	117	135	112	119	123
505:	108	113	102	139	151	197	227	192
513:	134	135	114	116	109	110	137	111
521:	131	113	122	127	114	102	112	134
529:	115	95	106	130	121	142	138	107
537:	121	119	120	127	111	124	116	127
545:	112	107	108	109	108	117	97	114
553:	94	102	97	110	99	124	99	109
561:	93	112	99	113	94	110	91	118
569:	107	97	113	99	130	111	88	111
577:	93	119	108	169	132	106	214	132
585:	113	89	102	99	91	105	106	109
593:	97	103	105	103	108	102	116	103
601:	100	92	99	106	102	107	125	1103
609:	7134	6386	816	97	86	77	88	82
617:	92	69	73	70	76	64	76	63
625:	61	85	76	93	85	69	80	72
633:	80	83	79	60	74	78	65	83
641:	76	70	74	62	81	70	85	73
649:	84	82	81	80	63	66	78	72
657:	83	73	71	102	78	94	65	110
665:	272	282	124	78	68	64	74	67
673:	61	82	85	71	84	71	74	81
681:	74	70	90	76	69	83	69	71
689:	58	84	76	81	68	62	73	64
697:	96	88	78	75	62	91	137	130
705:	97	95	66	87	79	71	68	72
713:	82	86	68	67	64	77	91	114
721:	100	78	79	76	78	68	77	85
729:	56	86	78	64	96	86	75	70
737:	74	81	66	64	93	97	111	81
745:	70	65	74	63	71	71	67	73
753:	79	71	69	62	60	63	62	62
761:	63	63	60	69	74	108	207	616
769:	670	187	87	73	63	63	77	60
777:	60	69	47	68	69	80	61	77
785:	145	250	167	83	63	69	64	56
793:	67	66	76	71	45	80	78	59
801:	65	76	69	72	113	254	195	78
809:	68	80	55	65	59	65	76	67
817:	78	55	77	84	78	94	81	42
825:	72	90	94	83	67	62	81	98
833:	79	66	68	101	70	78	161	145
841:	82	57	71	63	64	70	58	87
849:	72	79	62	58	58	66	58	73
857:	61	67	65	84	67	84	80	67
865:	75	73	63	65	70	64	70	74
873:	68	72	52	71	81	70	77	77
881:	67	80	65	71	65	79	58	63
889:	72	68	71	76	75	65	56	78
897:	76	74	64	65	68	74	72	77
905:	79	81	78	73	67	91	136	99

913:	88	69	77	64	53	57	86	70
921:	64	56	52	77	65	68	65	48
929:	64	61	76	77	179	412	260	101
937:	77	66	52	58	40	55	71	53
945:	74	62	64	49	61	83	62	67
953:	57	61	53	65	61	57	66	55
961:	62	74	75	103	103	60	49	72
969:	85	80	45	49	52	48	58	51
977:	46	66	49	59	58	45	59	54
985:	52	56	57	64	65	61	48	50
993:	59	65	66	58	65	52	63	86
1001:	125	99	66	50	57	46	56	66
1009:	58	58	60	62	46	61	47	62
1017:	55	49	43	42	61	60	55	57
1025:	43	53	32	34	40	53	44	51
1033:	59	58	53	47	33	51	55	58
1041:	48	42	45	48	49	40	44	49
1049:	57	42	68	68	67	49	45	64
1057:	40	50	41	53	48	49	54	46
1065:	61	55	50	54	54	67	66	47
1073:	48	51	54	46	53	45	44	35
1081:	47	45	38	40	43	45	48	56
1089:	44	41	53	47	42	39	48	52
1097:	61	49	54	42	46	47	49	46
1105:	65	44	45	48	50	52	44	45
1113:	57	47	39	43	53	68	364	1338
1121:	1360	369	73	43	52	37	57	48
1129:	61	53	48	42	61	57	55	50
1137:	59	38	47	36	55	49	48	50
1145:	37	32	50	50	43	45	36	47
1153:	58	84	206	165	72	59	44	48
1161:	36	46	39	43	37	36	39	37
1169:	49	53	45	51	57	68	48	34
1177:	41	34	60	47	42	55	44	40
1185:	43	48	42	43	37	39	56	41
1193:	55	41	43	42	36	44	44	48
1201:	43	38	33	45	42	46	69	80
1209:	50	37	35	43	35	36	47	48
1217:	44	63	42	43	39	36	40	43
1225:	39	43	46	47	38	45	35	50
1233:	44	33	37	68	210	521	414	141
1241:	34	52	22	43	44	41	37	35
1249:	25	36	33	47	57	64	46	56
1257:	36	28	34	32	32	37	31	38
1265:	27	34	37	29	24	30	33	29
1273:	35	35	40	29	31	37	47	89
1281:	164	130	52	34	30	33	39	33
1289:	45	32	36	38	34	31	40	27
1297:	37	28	40	35	32	26	34	37
1305:	41	36	29	30	38	36	29	33
1313:	38	34	19	34	30	38	25	22
1321:	43	37	31	27	38	34	39	44
1329:	33	39	41	34	28	37	36	34
1337:	32	32	29	33	30	39	24	29
1345:	38	37	35	25	36	38	27	29
1353:	28	32	27	39	28	35	32	27
1361:	35	33	36	32	26	24	24	37
1369:	25	30	26	32	25	30	44	75
1377:	261	357	201	61	26	29	35	35
1385:	92	83	51	39	34	31	40	20

1393:	33	33	29	29	26	24	31	67
1401:	125	133	67	38	36	40	110	209
1409:	145	66	36	32	26	31	26	28
1417:	39	41	32	35	29	31	38	42
1425:	42	40	37	31	22	25	31	30
1433:	33	36	33	33	45	33	40	36
1441:	36	34	32	22	26	22	21	44
1449:	19	31	29	25	32	37	24	35
1457:	36	37	57	234	326	220	74	51
1465:	35	37	32	32	42	27	33	39
1473:	30	38	29	32	27	30	35	36
1481:	38	39	26	41	36	38	37	38
1489:	41	27	35	22	29	45	37	29
1497:	35	38	37	43	41	39	47	39
1505:	38	40	47	84	171	158	82	50
1513:	33	38	35	30	43	36	37	26
1521:	36	42	31	29	27	30	36	32
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1537:	32	41	60	52	29	47	68	48
1545:	38	25	35	19	25	23	22	23
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1585:	30	28	18	31	21	24	19	22
1593:	20	37	35	30	35	36	40	44
1601:	25	19	17	23	29	18	18	18
1609:	16	13	24	27	20	16	20	28
1617:	11	15	16	24	17	16	10	17
1625:	9	17	18	26	18	14	17	12
1633:	23	20	16	9	22	18	16	16
1641:	16	15	10	14	20	12	20	15
1649:	16	17	13	22	12	15	13	14
1657:	19	20	19	39	82	57	29	12
1665:	12	17	6	12	18	7	10	10
1673:	6	10	14	16	10	14	15	15
1681:	15	12	23	32	13	18	12	10
1689:	12	14	12	18	27	22	15	12
1697:	10	10	4	7	11	10	12	14
1705:	12	6	12	13	12	9	11	15
1713:	12	7	7	12	9	10	15	9
1721:	11	19	7	7	9	18	18	71
1729:	189	222	125	43	22	7	7	11
1737:	9	10	8	9	16	10	8	11
1745:	6	9	7	7	10	10	6	10
1753:	11	8	7	9	7	15	8	4
1761:	8	55	282	839	889	479	109	16
1769:	5	8	4	10	11	8	10	7
1777:	7	7	9	4	5	8	10	12
1785:	10	9	7	11	5	10	6	6
1793:	10	11	6	3	6	5	5	8
1801:	12	9	6	6	7	8	8	9
1809:	9	4	13	7	9	8	7	3
1817:	11	9	8	6	10	8	11	10
1825:	2	7	7	8	10	7	6	6
1833:	8	13	3	10	7	23	21	15
1841:	10	8	7	8	12	52	116	143
1849:	70	25	16	8	6	4	4	9
1857:	10	6	3	11	11	6	7	8
1865:	7	12	8	7	12	5	11	11

1873:	21	20	18	16	8	10	4	6
1881:	9	13	5	8	6	5	4	11
1889:	9	16	18	12	13	20	19	15
1897:	14	10	10	14	7	4	11	13
1905:	12	7	9	9	7	11	4	7
1913:	6	6	7	10	4	6	11	10
1921:	11	7	12	3	11	8	6	7
1929:	4	10	9	9	6	11	9	12
1937:	12	11	7	10	8	11	8	4
1945:	10	12	8	7	7	5	9	11
1953:	10	7	4	6	4	7	11	9
1961:	9	7	8	9	10	11	6	4
1969:	11	12	7	9	2	3	12	7
1977:	3	7	12	7	4	5	9	5
1985:	5	6	9	6	5	4	5	10
1993:	2	11	6	7	8	7	5	8
2001:	5	3	12	8	3	6	3	4
2009:	11	11	11	8	2	8	7	12
2017:	5	7	9	7	5	4	6	5
2025:	5	6	6	2	9	2	7	6
2033:	8	3	8	3	5	5	4	2
2041:	7	6	5	6	6	7	10	1
2049:	4	5	5	9	11	10	5	6
2057:	6	5	9	4	5	3	5	5
2065:	5	1	4	5	8	8	3	5
2073:	6	9	3	2	2	3	3	5
2081:	3	4	2	4	5	2	4	3
2089:	8	4	1	4	2	4	5	3
2097:	6	6	4	4	7	5	3	7
2105:	6	4	2	5	4	6	6	3
2113:	4	1	4	11	22	54	62	26
2121:	11	4	6	0	3	1	3	3
2129:	2	0	2	3	1	1	4	2
2137:	3	1	3	1	3	3	5	6
2145:	5	1	2	3	2	1	3	5
2153:	2	4	2	1	6	1	5	1
2161:	2	4	1	2	2	4	1	0
2169:	2	2	3	3	4	6	2	3
2177:	0	7	2	1	6	2	2	5
2185:	0	5	4	3	2	2	3	3
2193:	2	6	3	1	4	4	4	3
2201:	15	42	133	245	194	75	23	6
2209:	2	5	5	4	5	1	6	3
2217:	4	1	3	4	2	1	4	4
2225:	2	2	1	7	1	1	3	5
2233:	1	3	6	3	2	2	1	3
2241:	2	1	0	3	0	2	3	2
2249:	2	0	1	3	6	2	3	2
2257:	2	2	1	2	2	0	4	2
2265:	1	1	2	2	2	0	2	3
2273:	1	1	4	2	2	1	1	0
2281:	0	1	3	4	4	0	1	2
2289:	3	3	4	7	16	11	9	2
2297:	4	1	0	2	2	0	1	0
2305:	2	2	0	4	2	0	4	2
2313:	1	2	2	3	0	3	0	3
2321:	1	1	2	2	0	1	0	2
2329:	5	2	4	1	1	0	1	0
2337:	1	2	1	0	2	1	1	2
2345:	2	0	3	2	0	0	3	0

2353:	0	1	0	0	1	2	1	2
2361:	0	1	0	1	1	3	0	2
2369:	3	5	1	1	0	1	1	2
2377:	0	1	1	0	1	0	1	1
2385:	1	1	0	0	1	1	0	1
2393:	1	1	1	0	1	0	1	0
2401:	1	1	1	1	1	1	1	0
2409:	3	0	1	1	1	0	1	0
2417:	1	2	3	2	0	3	3	0
2425:	0	0	0	0	2	0	2	1
2433:	3	0	1	1	0	1	0	1
2441:	1	0	0	4	8	21	47	75
2449:	37	17	4	0	0	2	0	2
2457:	2	0	1	0	2	1	2	1
2465:	0	2	1	2	0	0	0	1
2473:	0	1	1	1	2	1	0	0
2481:	0	1	2	2	0	0	1	0
2489:	0	0	0	0	2	0	0	1
2497:	1	0	1	0	1	0	1	1
2505:	0	0	2	1	2	1	0	1
2513:	0	0	0	1	1	0	0	0
2521:	0	0	0	1	0	0	1	0
2529:	0	1	1	1	0	1	1	1
2537:	0	0	1	0	1	0	0	0
2545:	1	0	1	1	0	0	0	0
2553:	1	1	0	0	0	1	0	0
2561:	0	0	0	1	1	0	2	0
2569:	0	0	0	0	0	0	1	0
2577:	1	0	0	0	0	0	2	2
2585:	1	1	0	0	0	0	0	0
2593:	0	1	0	0	0	2	0	0
2601:	0	1	0	0	0	0	0	0
2609:	0	1	3	5	7	18	20	11
2617:	4	1	1	0	0	0	3	1
2625:	0	1	1	0	1	0	0	1
2633:	0	0	0	0	0	1	2	0
2641:	0	1	1	0	1	2	0	0
2649:	0	0	1	0	0	1	0	0
2657:	0	1	0	0	1	0	1	0
2665:	0	0	0	0	2	0	0	2
2673:	0	0	0	0	1	0	0	1
2681:	0	0	0	0	0	0	1	1
2689:	1	1	0	1	1	2	2	1
2697:	0	1	0	0	0	0	0	1
2705:	0	0	0	1	0	2	0	0
2713:	0	0	0	0	0	0	0	0
2721:	1	0	0	1	1	0	2	3
2729:	0	0	0	0	0	0	0	0
2737:	1	0	0	0	0	1	1	1
2745:	1	0	0	1	0	0	0	0
2753:	0	0	0	0	0	0	1	0
2761:	1	0	0	0	1	0	0	1
2769:	0	1	1	1	0	2	0	0
2777:	1	0	0	1	0	1	0	0
2785:	0	0	0	1	0	1	0	0
2793:	1	0	0	0	0	0	0	1
2801:	0	0	0	0	0	0	0	0
2809:	0	0	1	0	1	1	0	0
2817:	0	1	0	0	0	0	0	1
2825:	0	1	1	1	0	0	0	0

2833:	0	0	1	0	1	0	0	0
2841:	1	0	0	0	0	0	0	0
2849:	1	0	0	1	0	1	1	0
2857:	0	0	0	0	0	0	1	1
2865:	0	0	1	1	1	0	0	1
2873:	2	0	2	0	0	0	1	1
2881:	1	0	0	0	0	0	0	0
2889:	0	0	0	1	0	0	2	1
2897:	0	0	0	1	0	0	0	1
2905:	0	1	0	0	1	0	1	0
2913:	0	0	0	1	0	0	0	2
2921:	2	0	0	0	0	0	0	0
2929:	0	0	0	0	0	0	1	0
2937:	0	1	0	0	1	0	0	1
2945:	1	0	1	0	1	0	0	0
2953:	0	0	0	0	0	0	0	0
2961:	0	0	1	1	0	0	1	0
2969:	1	0	1	0	0	0	0	0
2977:	1	0	1	0	2	0	0	0
2985:	0	0	0	1	0	1	0	0
2993:	0	2	0	0	0	0	1	0
3001:	0	0	1	0	0	0	0	1
3009:	0	0	0	0	1	0	0	0
3017:	0	1	0	0	0	0	1	0
3025:	0	0	0	1	0	0	0	0
3033:	0	0	1	0	0	0	0	0
3041:	0	0	1	0	1	0	0	0
3049:	2	2	0	0	0	0	0	0
3057:	0	0	0	1	0	1	1	0
3065:	1	0	0	0	0	1	0	0
3073:	0	0	0	0	0	0	0	0
3081:	1	0	0	0	0	0	0	0
3089:	0	0	0	0	0	0	0	0
3097:	0	0	0	1	0	0	0	0
3105:	0	0	2	0	1	1	0	0
3113:	0	1	0	0	0	1	0	0
3121:	0	0	0	1	0	0	1	0
3129:	0	0	0	0	0	0	0	0
3137:	0	0	0	0	0	1	1	0
3145:	0	0	1	0	0	0	0	0
3153:	0	0	0	0	0	0	0	0
3161:	0	0	0	0	0	0	0	0
3169:	0	0	0	0	0	0	0	0
3177:	0	0	0	0	0	1	1	0
3185:	0	0	0	1	0	0	0	0
3193:	0	0	0	0	1	0	0	0
3201:	1	0	0	1	0	1	1	0
3209:	0	0	0	0	0	0	0	0
3217:	0	0	0	0	0	1	0	0
3225:	0	0	0	0	0	0	0	0
3233:	0	0	0	0	0	0	0	0
3241:	0	0	0	0	0	0	0	0
3249:	1	1	0	0	1	0	0	0
3257:	0	0	0	0	0	0	0	0
3265:	0	0	0	0	0	0	2	0
3273:	0	0	1	0	1	0	0	1
3281:	0	0	0	0	0	0	0	0
3289:	0	0	0	0	0	0	0	0
3297:	1	0	0	0	1	0	0	0
3305:	1	0	0	0	0	0	0	1

3313:	0	0	1	0	0	0	0	0
3321:	0	0	0	1	0	0	1	0
3329:	0	0	0	1	0	1	1	0
3337:	0	0	0	1	0	1	0	0
3345:	1	0	0	0	0	0	0	0
3353:	0	0	0	0	0	0	0	0
3361:	0	0	0	0	0	0	0	0
3369:	0	0	0	0	0	0	1	0
3377:	0	0	0	0	0	0	0	0
3385:	0	0	0	0	1	0	1	0
3393:	3	0	0	0	1	0	0	0
3401:	0	0	0	0	0	0	0	0
3409:	1	1	0	0	0	0	0	0
3417:	0	0	0	0	0	0	0	0
3425:	1	0	1	0	0	0	0	2
3433:	0	0	0	0	0	0	0	0
3441:	0	0	1	0	0	1	0	0
3449:	0	0	0	0	0	1	1	1
3457:	0	0	0	0	0	0	0	0
3465:	0	0	1	0	0	0	0	0
3473:	0	0	0	0	1	0	0	0
3481:	0	0	1	0	0	1	0	0
3489:	0	0	0	1	0	0	0	0
3497:	0	0	1	0	0	0	0	0
3505:	0	0	0	0	0	0	1	0
3513:	0	1	0	0	0	0	0	0
3521:	0	1	0	0	0	0	1	0
3529:	0	0	1	0	0	0	0	0
3537:	0	0	2	0	0	0	0	0
3545:	2	0	0	0	0	0	0	0
3553:	0	0	0	0	0	0	0	0
3561:	0	0	0	0	0	0	0	0
3569:	0	0	0	0	0	0	0	0
3577:	0	0	0	0	0	0	0	0
3585:	0	0	0	0	0	0	0	0
3593:	0	0	0	0	0	1	1	0
3601:	0	0	0	0	0	0	0	0
3609:	0	0	0	0	0	0	2	0
3617:	0	0	0	0	0	0	0	0
3625:	0	0	0	1	0	1	1	0
3633:	0	0	0	0	0	0	0	1
3641:	0	0	0	0	0	0	1	1
3649:	0	0	0	0	0	0	1	0
3657:	0	0	0	0	0	0	0	0
3665:	0	0	0	0	0	0	0	1
3673:	1	0	0	0	1	0	1	1
3681:	1	0	0	0	0	0	0	0
3689:	0	0	1	0	0	0	0	0
3697:	0	0	0	0	0	1	0	0
3705:	0	0	0	0	1	0	0	0
3713:	0	0	1	1	0	0	0	0
3721:	0	0	0	0	0	1	0	0
3729:	0	0	0	0	0	0	0	0
3737:	1	0	1	0	1	1	0	0
3745:	0	0	0	0	0	0	0	0
3753:	1	1	0	0	0	0	0	0
3761:	1	0	0	0	0	0	0	0
3769:	0	0	0	0	0	0	1	0
3777:	0	0	0	0	1	0	0	0
3785:	0	2	0	0	1	0	0	0

3793:	0	0	0	0	0	0	0	0	0
3801:	0	0	0	0	0	0	0	0	0
3809:	0	0	0	0	0	0	0	0	0
3817:	0	1	1	0	0	0	0	0	0
3825:	1	0	0	0	0	0	0	0	1
3833:	0	0	0	0	0	0	0	0	0
3841:	0	0	0	0	0	0	0	0	0
3849:	0	0	0	1	0	0	0	0	0
3857:	0	0	0	0	1	0	0	0	1
3865:	0	0	0	0	0	0	0	0	0
3873:	0	0	0	0	0	0	0	0	0
3881:	0	0	0	0	0	0	0	0	0
3889:	0	0	0	0	0	0	0	0	0
3897:	0	0	0	0	0	0	0	0	0
3905:	0	0	0	0	0	0	0	0	0
3913:	0	0	0	0	0	0	0	0	1
3921:	0	0	0	0	0	1	1	1	0
3929:	0	0	0	0	0	0	1	1	0
3937:	0	0	0	1	0	0	0	0	0
3945:	0	1	0	1	0	0	0	0	0
3953:	0	0	0	1	0	0	0	0	1
3961:	0	0	0	1	0	0	0	0	0
3969:	0	0	0	0	0	0	0	0	0
3977:	1	0	0	0	0	0	0	0	0
3985:	0	0	0	0	1	0	0	0	0
3993:	0	0	0	0	0	0	0	0	0
4001:	0	0	2	0	0	0	1	1	0
4009:	0	1	0	0	0	0	0	0	0
4017:	0	0	0	0	0	0	1	1	1
4025:	0	0	0	0	0	0	0	0	0
4033:	0	0	0	0	0	0	1	1	0
4041:	0	0	0	0	0	0	0	0	0
4049:	0	0	0	0	0	0	0	0	0
4057:	0	0	0	0	0	0	0	0	0
4065:	0	0	0	0	0	0	0	0	0
4073:	0	0	0	0	0	0	0	0	0
4081:	0	0	0	0	0	0	0	0	0
4089:	0	0	1	0	0	0	0	0	0

AG
12/11/11

VAX/VMS Peak Search Report Generated 11-DEC-2011 20:42:11.76

Configuration : DKA100: [GAMMA.SCUSR.ARCHIVE] SMP 111106817_GE1_GAS1102_172302.
 Analyses by : PEAK V16.9 ENBACK V1.6 PEAKEFF V2.2
 Client ID : S12-64-31-111107
 Deposition Date :
 Sample Date : 7-NOV-2011 00:00:00. Acquisition date : 11-DEC-2011 19:41:56
 Sample ID : 1111068-17 Sample Quantity : 4.12230E+02 GRAM
 Sample type : SOIL Sample Geometry : 0
 Detector name : GE1 Detector Geometry: GAS-1102
 Elapsed live time: 0 01:00:00.00 Elapsed real time: 0 01:00:03.37 0.1%
 Start channel : 5 End channel : 4096
 Sensitivity : 2.40000 Gaussian : 15.00000
 Critical level : Yes

Post-NID Peak Search Report

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides
2	43.27	83	614	1.64	42.89	41	8	82.5	2.73E+00	
2	46.64*	482	890	1.46	46.26	41	8	20.0		PB-210
0	53.47	107	1645	1.21	53.10	51	6	121.4		
0	63.38*	710	2469	1.42	63.01	59	7	24.6		TH-234
0	76.53*	4606	4728	3.08	76.17	71	12	6.7		
1	84.42*	282	1564	1.39	84.05	82	16	39.6	9.51E+01	
1	87.51	715	1759	1.58	87.14	82	16	18.9		NP-237 SN-126 CD-109
1	90.51	389	1591	1.58	90.14	82	16	34.6		
0	143.79*	281	1825	2.25	143.43	139	9	56.3		
0	155.11	172	1497	2.37	154.75	151	7	76.3		
0	186.42*	1195	1774	1.42	186.07	181	10	14.5		RA-226
0	210.04	96	893	1.57	209.70	207	6	100.4		
1	239.17*	995	657	1.76	238.84	235	12	10.2	1.19E+01	PB-212
1	242.40	1196	586	1.76	242.06	235	12	9.5		RA-224
2	256.65	44	212	1.45	256.32	255	7	83.8	9.46E+00	
2	259.31	109	505	1.77	258.98	255	7	65.2		
0	270.57	185	760	1.91	270.24	267	7	51.4		
0	276.56	95	571	3.19	276.23	274	6	83.3		
5	295.57*	2426	392	1.56	295.25	290	15	4.8	2.96E+00	PB-214
5	299.94	224	590	2.65	299.61	290	15	47.7		PB-212
0	313.14	114	627	4.68	312.82	308	10	83.9		PA-233
0	338.63*	227	648	1.81	338.32	334	9	42.7		AC-228
2	352.29*	4099	278	1.63	351.98	346	13	3.4	6.19E+00	PB-214
2	355.96	135	290	2.04	355.65	346	13	61.8		
0	401.58	77	254	1.94	401.28	399	5	66.3		RN-219
0	410.55	57	348	2.28	410.25	408	6	107.2		
0	463.56	65	350	1.89	463.27	459	9	106.8		
0	511.29*	129	417	2.48	511.01	505	12	67.9		
1	580.58	49	105	2.04	580.32	578	14	64.6	4.27E+00	
1	583.56*	339	160	1.94	583.30	578	14	16.6		TL-208
0	609.66*	3008	371	2.01	609.40	603	12	4.5		BI-214
0	650.97	37	122	1.65	650.72	648	7	102.7		
0	665.94	61	178	2.14	665.70	663	6	75.5		
0	693.95	47	100	3.04	693.71	691	6	72.8		

AG
12/12/11

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides
2	768.56	296	130	2.15	768.34	762	15	16.6	3.29E+00	
2	773.35	27	130	2.34	773.13	762	15153.0			
0	785.15	139	203	3.04	784.93	780	11	43.2		
0	796.03	76	192	5.56	795.81	791	11	74.2		
0	806.19	77	155	2.16	805.98	802	9	63.0		
0	861.81	53	136	2.27	861.61	857	8	81.4		TL-208
0	911.18	234	217	1.93	910.99	905	11	27.7		AC-228
0	934.32	152	138	2.05	934.13	930	9	32.2		
1	964.39	43	110	2.22	964.20	959	16	88.7	1.32E+00	
1	969.36*	130	107	2.22	969.18	959	16	32.4		AC-228
0	1002.31*	47	125	2.43	1002.13	998	9	92.1		PA-234M
0	1009.50	30	68	3.66	1009.32	1007	6	95.7		
0	1064.09	46	82	4.23	1063.92	1060	8	75.0		
0	1072.28	23	54	2.78	1072.12	1070	5108.4			
0	1111.42	37	114	2.82	1111.27	1105	10113.0			
0	1120.69	680	152	2.27	1120.54	1116	12	10.6		BI-214
0	1155.12	112	179	2.39	1154.97	1148	14	53.9		
0	1238.51	231	151	2.04	1238.38	1234	10	23.9		
0	1281.22	61	79	3.24	1281.11	1278	7	55.4		
0	1322.49	28	73	2.26	1322.38	1316	10120.6			
3	1377.99	190	58	2.33	1377.89	1372	20	19.2	1.58E+00	
3	1385.81	38	56	2.91	1385.72	1372	20	82.5		
1	1401.92	55	65	2.41	1401.82	1398	15	52.0	4.78E+00	
1	1408.31	90	62	2.41	1408.22	1398	15	35.6		
0	1461.25*	778	137	2.17	1461.17	1456	11	9.3		K-40
0	1509.62	94	66	2.24	1509.55	1505	11	38.9		
0	1583.94	27	56	1.60	1583.88	1580	8103.6			
3	1588.78	21	10	2.83	1588.73	1587	18	44.5	2.21E+00	
3	1594.83	19	28	2.48	1594.77	1587	18106.8			
0	1634.13	23	42	6.38	1634.09	1627	11119.5			
0	1651.94	10	12	2.03	1651.90	1648	8135.6			
0	1661.99	41	46	1.57	1661.95	1657	10	68.2		
0	1692.89	28	10	5.34	1692.86	1689	8	54.1		
0	1699.42	13	5	2.53	1699.38	1697	5	75.8		
0	1729.84	98	26	3.08	1729.82	1726	8	27.1		
0	1764.78*	548	19	2.50	1764.77	1760	12	9.2		BI-214
0	1789.96	17	7	2.91	1789.95	1785	10	77.9		
0	1798.09	13	4	3.16	1798.08	1795	7	75.3		
0	1803.55	7	4	1.18	1803.54	1802	5117.8			
3	1844.00	8	2	2.34	1844.00	1843	11	12.3	5.87E+00	
3	1847.41	71	7	2.44	1847.41	1843	11	27.9		
3	1850.51	21	6	2.83	1850.51	1843	11	97.6		
0	2017.63	8	4	3.11	2017.67	2015	6110.0			
0	2051.12	19	2	5.37	2051.16	2047	9	55.0		
0	2104.15	14	10	1.74	2104.21	2099	10102.8			
0	2118.93	44	13	2.16	2118.98	2114	11	44.7		
0	2165.32	9	4	2.82	2165.39	2161	8101.8			
0	2204.53*	156	8	3.16	2204.61	2200	12	17.8		BI-214
0	2224.09	7	1	2.49	2224.17	2222	6	91.5		
0	2293.69	16	5	3.12	2293.78	2290	10	72.3		
0	2368.89	6	3	1.18	2369.00	2366	5121.3			

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides
0	2374.64	10	1	3.23	2374.75	2372	6	74.8		
0	2411.94	7	4	2.21	2412.05	2406	8	127.9		
0	2447.85	34	6	1.58	2447.97	2444	8	42.2		
0	2614.89*	118	7	2.30	2615.05	2610	10	20.8		TL-208

Total number of lines in spectrum 89
 Number of unidentified lines 47
 Number of lines tentatively identified by NID 42 47.19%

Nuclide Type : NATURAL

Nuclide	Hlife	Decay	Wtd Mean		Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
			Uncorrected pCi/GRAM	Decay Corr pCi/GRAM			
K-40	1.28E+09Y	1.00	2.640E+01	2.640E+01	0.348E+01	13.19	
TL-208	1.41E+10Y	1.00	1.849E+00	1.849E+00	0.273E+00	14.74	
PB-210	22.26Y	1.00	8.299E+00	8.324E+00	1.812E+00	21.77	
PB-212	1.41E+10Y	1.00	2.064E+00	2.064E+00	0.277E+00	13.40	
BI-214	1602.00Y	1.00	1.305E+01	1.305E+01	0.089E+01	6.80	
PB-214	1602.00Y	1.00	1.319E+01	1.319E+01	0.093E+01	7.08	
RN-219	3.28E+04Y	1.00	1.558E+00	1.558E+00	1.042E+00	66.93	
RA-224	1.41E+10Y	1.00	2.775E+01	2.775E+01	0.365E+01	13.16	
RA-226	1602.00Y	1.00	2.876E+01	2.876E+01	5.283E+01	183.72	
AC-228	1.41E+10Y	1.00	2.155E+00	2.155E+00	0.424E+00	19.66	
PA-233	27.00D	2.45	3.232E-01	7.906E-01	6.872E-01	86.92	
PA-234M	4.47E+09Y	1.00	1.386E+01	1.386E+01	1.282E+01	92.53	
TH-234	4.47E+09Y	1.00	1.180E+01	1.180E+01	0.306E+01	25.97	
Total Activity :			1.511E+02	1.515E+02			

Nuclide Type : FISSION

Nuclide	Hlife	Decay	Wtd Mean		Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
			Uncorrected pCi/GRAM	Decay Corr pCi/GRAM			
CD-109	464.00D	1.05	1.195E+01	1.258E+01	0.284E+01	22.56	
SN-126	1.00E+05Y	1.00	1.201E+00	1.201E+00	0.261E+00	21.75	
NP-237	2.14E+06Y	1.00	3.522E+00	3.522E+00	0.764E+00	21.69	
Total Activity :			1.667E+01	1.731E+01			

Grand Total Activity : 1.677E+02 1.689E+02

Flags: "K" = Keyline not found
 "E" = Manually edited

"M" = Manually accepted
 "A" = Nuclide specific abn. limit

Nuclide Type: NATURAL

Nuclide	Energy	%Abn	%Eff	Uncorrected Decay Corr		2-Sigma %Error	Status
				pCi/GRAM	pCi/GRAM		
K-40	1460.81	10.67*	5.027E-01	2.640E+01	2.640E+01	13.19	OK
Final Mean for 1 Valid Peaks = 2.640E+01+/- 3.483E+00 (13.19%)							
TL-208	583.14	30.22*	1.029E+00	1.984E+00	1.984E+00	19.42	OK
	860.37	4.48	7.505E-01	2.871E+00	2.871E+00	81.88	OK
	2614.66	35.85	3.563E-01	1.681E+00	1.681E+00	23.25	OK
Final Mean for 3 Valid Peaks = 1.849E+00+/- 2.726E-01 (14.74%)							
PB-210	46.50	4.05*	2.613E+00	8.299E+00	8.324E+00	21.77	OK
Final Mean for 1 Valid Peaks = 8.324E+00+/- 1.812E+00 (21.77%)							
PB-212	238.63	44.60*	2.000E+00	2.031E+00	2.031E+00	13.66	OK
	300.09	3.41	1.716E+00	6.975E+00	6.975E+00	48.61	OK
Final Mean for 2 Valid Peaks = 2.064E+00+/- 2.766E-01 (13.40%)							
BI-214	609.31	46.30*	9.927E-01	1.192E+01	1.192E+01	11.07	OK
	1120.29	15.10	6.104E-01	1.343E+01	1.343E+01	13.96	OK
	1764.49	15.80	4.432E-01	1.424E+01	1.424E+01	12.86	OK
	2204.22	4.98	3.885E-01	1.468E+01	1.468E+01	20.31	OK
Final Mean for 4 Valid Peaks = 1.305E+01+/- 8.876E-01 (6.80%)							
PB-214	295.21	19.19	1.736E+00	1.326E+01	1.326E+01	10.27	OK
	351.92	37.19*	1.529E+00	1.312E+01	1.312E+01	9.79	OK
Final Mean for 2 Valid Peaks = 1.319E+01+/- 9.344E-01 (7.08%)							
RN-219	401.80	6.50*	1.383E+00	1.558E+00	1.558E+00	66.93	OK
Final Mean for 1 Valid Peaks = 1.558E+00+/- 1.042E+00 (66.93%)							
RA-224	240.98	3.95*	1.987E+00	2.775E+01	2.775E+01	13.16	OK
Final Mean for 1 Valid Peaks = 2.775E+01+/- 3.651E+00 (13.16%)							
RA-226	186.21	3.28*	2.308E+00	2.876E+01	2.876E+01	183.72	OK
Final Mean for 1 Valid Peaks = 2.876E+01+/- 5.283E+01 (183.72%)							
AC-228	338.32	11.40	1.575E+00	2.301E+00	2.301E+00	43.68	OK
	911.07	27.70*	7.170E-01	2.145E+00	2.145E+00	29.08	OK
	969.11	16.60	6.829E-01	2.097E+00	2.097E+00	33.62	OK
Final Mean for 3 Valid Peaks = 2.155E+00+/- 4.236E-01 (19.66%)							

Nuclide Type: NATURAL

Nuclide	Energy	%Abn	%Eff	Uncorrected Decay Corr		2-Sigma	Status
				pCi/GRAM	pCi/GRAM	%Error	
PA-233	311.98	38.60*	1.670E+00	3.232E-01	7.906E-01	86.92	OK
Final Mean for 1 Valid Peaks = 7.906E-01+/- 6.872E-01 (86.92%)							
PA-234M	1001.03	0.92*	6.658E-01	1.386E+01	1.386E+01	92.53	OK
Final Mean for 1 Valid Peaks = 1.386E+01+/- 1.282E+01 (92.53%)							
TH-234	63.29	3.80*	2.884E+00	1.180E+01	1.180E+01	25.97	OK
Final Mean for 1 Valid Peaks = 1.180E+01+/- 3.065E+00 (25.97%)							

Nuclide Type: FISSION

Nuclide	Energy	%Abn	%Eff	Uncorrected Decay Corr		2-Sigma	Status
				pCi/GRAM	pCi/GRAM	%Error	
CD-109	88.03	3.72*	2.931E+00	1.195E+01	1.258E+01	22.56	OK
Final Mean for 1 Valid Peaks = 1.258E+01+/- 2.839E+00 (22.56%)							
SN-126	87.57	37.00*	2.932E+00	1.201E+00	1.201E+00	21.75	OK
Final Mean for 1 Valid Peaks = 1.201E+00+/- 2.611E-01 (21.75%)							
NP-237	86.50	12.60*	2.935E+00	3.522E+00	3.522E+00	21.69	OK
Final Mean for 1 Valid Peaks = 3.522E+00+/- 7.641E-01 (21.69%)							

Flag: "*" = Keyline

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.640E+01	3.483E+00	1.334E+00	1.131E-01	19.783
CD-109	1.258E+01	2.839E+00	3.141E+00	3.647E-01	4.007
SN-126	1.201E+00	2.611E-01	2.996E-01	2.978E-02	4.007
TL-208	1.849E+00	2.726E-01	3.714E-01	3.435E-02	4.977
PB-210	8.324E+00	1.812E+00	2.488E+00	1.920E-01	3.346
PB-212	2.064E+00	2.766E-01	2.250E-01	1.842E-02	9.174
BI-214	1.305E+01	8.876E-01	2.416E-01	2.247E-02	54.015
PB-214	1.319E+01	9.344E-01	2.681E-01	2.217E-02	49.198
RN-219	1.558E+00	1.042E+00	1.715E+00	1.422E-01	0.908
RA-224	2.775E+01	3.651E+00	2.558E+00	2.094E-01	10.850
RA-226	2.876E+01	5.283E+01	3.277E+00	6.001E+00	8.774
AC-228	2.155E+00	4.236E-01	4.775E-01	3.794E-02	4.513
PA-233	7.906E-01	6.872E-01	6.096E-01	1.360E-01	1.297
PA-234M	1.386E+01	1.282E+01	1.347E+01	1.092E+00	1.029
TH-234	1.180E+01	3.065E+00	3.092E+00	2.291E-01	3.817
NP-237	3.522E+00	7.641E-01	8.785E-01	8.622E-02	4.010

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	2.039E-01		9.238E-01	1.641E+00	1.447E-01	0.124
NA-22	-5.837E-02		1.006E-01	1.443E-01	1.181E-02	-0.404
AL-26	4.691E-04		4.855E-02	7.966E-02	6.363E-03	0.006
TI-44	3.539E-02		9.654E-02	1.305E-01	1.022E-02	0.271
SC-46	-2.202E-02		1.005E-01	1.722E-01	1.378E-02	-0.128
V-48	-8.190E-02		3.440E-01	5.870E-01	4.744E-02	-0.140
CR-51	-5.691E-01		1.681E+00	2.423E+00	2.113E-01	-0.235
MN-54	-3.329E-02		8.238E-02	1.396E-01	1.184E-02	-0.239
CO-56	-1.727E-02		1.039E-01	1.786E-01	1.498E-02	-0.097
CO-57	1.792E-02		7.732E-02	1.267E-01	1.223E-02	0.141
CO-58	5.729E-02		1.111E-01	1.805E-01	1.568E-02	0.317
FE-59	-1.041E-02		2.421E-01	3.985E-01	3.553E-02	-0.026
CO-60	2.120E-02		9.090E-02	1.581E-01	1.293E-02	0.134
ZN-65	1.064E-01		2.336E-01	3.051E-01	2.500E-02	0.349
SE-75	4.190E-02		1.629E-01	2.129E-01	1.748E-02	0.197
RB-82	-6.847E-01		1.920E+00	2.268E+00	2.017E-01	-0.302
RB-83	-1.543E-02		1.954E-01	3.077E-01	4.882E-02	-0.050
KR-85	3.833E+01		1.594E+01	2.979E+01	2.683E+00	1.286
SR-85	2.417E-01		1.005E-01	1.879E-01	1.692E-02	1.286
Y-88	1.501E-02		6.360E-02	1.193E-01	9.481E-03	0.126
NB-93M	-9.495E+00		2.323E+00	1.367E-01	3.041E-02	-69.477
NB-94	-8.378E-03		7.280E-02	1.258E-01	1.028E-02	-0.067
NB-95	7.176E-01		1.978E-01	3.692E-01	3.307E-02	1.944
ZR-95	7.498E-02		2.012E-01	3.420E-01	3.365E-02	0.219
RU-103	1.154E-01		1.237E-01	2.248E-01	3.225E-02	0.513
RU-106	4.825E-01		6.560E-01	1.194E+00	1.649E-01	0.404
AG-108M	-1.292E-01		8.681E-02	1.375E-01	1.260E-02	-0.939

----- Non-Identified Nuclides -----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AG-110M	-1.366E-01		1.020E-01	1.278E-01	1.193E-02	-1.069
SN-113	-2.562E-02		1.224E-01	2.139E-01	1.815E-02	-0.120
TE123M	4.494E-02		1.053E-01	1.590E-01	1.316E-02	0.283
SB-124	1.259E-02		1.086E-01	1.725E-01	1.603E-02	0.073
I-125	2.892E-01		1.440E+00	2.426E+00	2.201E-01	0.119
SB-125	-4.193E-02		2.228E-01	3.892E-01	3.371E-02	-0.108
SB-126	8.118E-01		9.278E-01	1.687E+00	1.546E-01	0.481
I-129	-1.865E-01		1.304E-01	2.083E-01	2.187E-02	-0.895
I-131	6.914E-01		1.405E+00	2.527E+00	2.088E-01	0.274
BA-133	2.715E-01	+	1.718E-01	2.516E-01	3.264E-02	1.079
CS-134	1.848E-02		7.829E-02	1.250E-01	1.164E-02	0.148
CS-135	5.618E-01		4.702E-01	7.213E-01	5.870E-02	0.779
CS-136	-3.318E-01		6.279E-01	1.044E+00	8.813E-02	-0.318
CS-137	8.701E-02		9.505E-02	1.565E-01	1.464E-02	0.556
LA-138	-1.986E-02		1.160E-01	1.974E-01	1.622E-02	-0.101
CE-139	9.019E-04		9.635E-02	1.560E-01	1.247E-02	0.006
BA-140	9.309E-01		1.663E+00	2.947E+00	9.804E-01	0.316
LA-140	6.186E-01		5.614E-01	9.942E-01	8.156E-02	0.622
CE-141	6.576E-01		3.322E-01	4.833E-01	1.265E-01	1.361
CE-144	-2.321E-02		6.290E-01	1.022E+00	9.448E-02	-0.023
PM-144	2.336E-02		8.028E-02	1.286E-01	1.191E-02	0.182
PM-145	1.115E-01		2.952E-01	4.841E-01	3.153E-01	0.230
PM-146	9.479E-02		1.637E-01	2.817E-01	2.442E-02	0.337
ND-147	-2.841E+00		4.196E+00	7.129E+00	6.473E-01	-0.398
EU-152	2.144E+00	+	8.009E-01	1.388E+00	1.470E-01	1.545
GD-153	-1.049E-01		2.841E-01	4.609E-01	4.510E-02	-0.228
EU-154	-1.589E-01		2.782E-01	3.998E-01	3.272E-02	-0.397
EU-155	1.456E+00	+	3.157E-01	4.640E-01	4.553E-02	3.137
EU-156	-3.180E-01		3.779E+00	5.855E+00	1.338E+00	-0.054
HO-166M	3.578E-03		1.219E-01	2.138E-01	1.967E-02	0.017
HF-172	-2.638E-01		5.651E-01	9.093E-01	8.651E-02	-0.290
LU-172	9.071E-01		4.630E+00	8.122E+00	6.644E-01	0.112
LU-173	7.456E-01		4.583E-01	6.291E-01	5.112E-02	1.185
HF-175	-3.694E-03		1.394E-01	1.778E-01	1.470E-02	-0.021
LU-176	1.505E-03		7.713E-02	9.938E-02	8.155E-03	0.015
TA-182	7.181E+00	+	1.002E+00	1.369E+00	1.121E-01	5.244
IR-192	2.265E-02		1.870E-01	2.990E-01	2.619E-02	0.076
HG-203	-9.403E-03		1.539E-01	2.259E-01	1.888E-02	-0.042
BI-207	-3.430E-02		6.595E-02	1.127E-01	1.038E-02	-0.304
BI-210M	7.582E-02		1.532E-01	2.306E-01	1.881E-02	0.329
PB-211	2.726E+00		2.932E+00	3.972E+00	3.303E-01	0.686
BI-212	9.541E-01		6.634E-01	1.217E+00	1.112E-01	0.784
RA-223	-6.735E-01		1.732E+00	2.718E+00	2.242E-01	-0.248
RA-225	-6.697E-02		1.065E+00	1.645E+00	1.377E-01	-0.041
TH-227	2.413E+00		7.278E-01	1.142E+00	9.348E-02	2.114
TH-230	2.154E+01		2.426E+01	3.321E+01	2.595E+00	0.649
PA-231	6.080E+00		2.970E+00	4.726E+00	3.872E-01	1.287
TH-231	3.638E-01		7.044E-01	1.192E+00	1.457E-01	0.305

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PA-234	1.525E-01		3.069E-01	5.046E-01	4.705E-02	0.302
U-235	1.873E+00	+	1.107E+00	1.077E+00	1.899E-01	1.739
AM-241	3.312E-01		2.277E-01	3.183E-01	2.254E-02	1.040
AM-243	1.966E+00		2.367E-01	2.712E-01	2.308E-02	7.247
CM-243	6.831E-01	+	5.722E-01	7.844E-01	6.358E-02	0.871

Total number of lines in spectrum 89
 Number of unidentified lines 47
 Number of lines tentatively identified by NID 42 47.19%

Nuclide Type : NATURAL

Nuclide	Hlife	Decay	Wtd Mean		Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
			Uncorrected pCi/GRAM	Decay Corr pCi/GRAM			
K-40	1.28E+09Y	1.00	2.640E+01	2.640E+01	0.348E+01	13.19	
TL-208	1.41E+10Y	1.00	1.849E+00	1.849E+00	0.273E+00	14.74	
PB-210	22.26Y	1.00	8.299E+00	8.324E+00	1.812E+00	21.77	
PB-212	1.41E+10Y	1.00	2.064E+00	2.064E+00	0.277E+00	13.40	
BI-214	1602.00Y	1.00	1.305E+01	1.305E+01	0.089E+01	6.80	
PB-214	1602.00Y	1.00	1.319E+01	1.319E+01	0.093E+01	7.08	
RN-219	3.28E+04Y	1.00	1.558E+00	1.558E+00	1.042E+00	66.93	
RA-224	1.41E+10Y	1.00	2.775E+01	2.775E+01	0.365E+01	13.16	
RA-226	1602.00Y	1.00	2.876E+01	2.876E+01	5.283E+01	183.72	
AC-228	1.41E+10Y	1.00	2.155E+00	2.155E+00	0.424E+00	19.66	
PA-233	27.00D	2.45	3.232E-01	7.906E-01	6.872E-01	86.92	
PA-234M	4.47E+09Y	1.00	1.386E+01	1.386E+01	1.282E+01	92.53	
TH-234	4.47E+09Y	1.00	1.180E+01	1.180E+01	0.306E+01	25.97	
Total Activity :			1.511E+02	1.515E+02			

Nuclide Type : FISSION

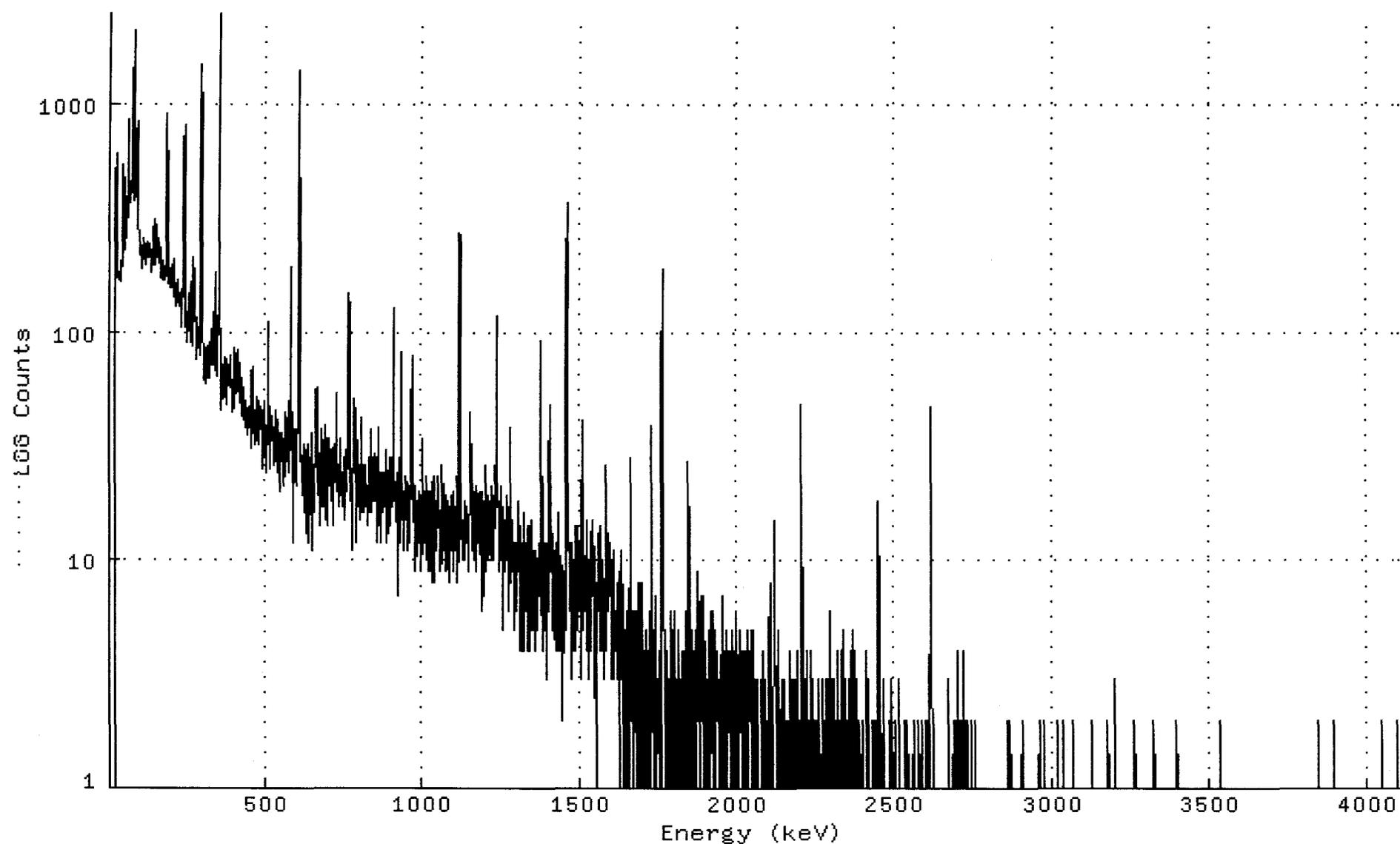
Nuclide	Hlife	Decay	Wtd Mean		Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
			Uncorrected pCi/GRAM	Decay Corr pCi/GRAM			
CD-109	464.00D	1.05	1.195E+01	1.258E+01	0.284E+01	22.56	
SN-126	1.00E+05Y	1.00	1.201E+00	1.201E+00	0.261E+00	21.75	
NP-237	2.14E+06Y	1.00	3.522E+00	3.522E+00	0.764E+00	21.69	
Total Activity :			1.667E+01	1.731E+01			

Grand Total Activity : 1.677E+02 1.689E+02

Flags: "K" = Keyline not found
 "E" = Manually edited

"M" = Manually accepted
 "A" = Nuclide specific abn. limit

Spectrum : DKA100:[GAMMA.SCUSR.ARCHIVE]SMP_111106817_GE1_GAS1102_172302.CNF;1
Title :
Sample Title: S12-64-31-111107
Start Time: 11-DEC-2011 19:41 Sample Time: 7-NOV-2011 00:00: Energy Offset: 3.84457E-01
Real Time : 0 01:00:03.37 Sample ID : 1111068-17 Energy Slope : 9.99792E-01
Live Time : 0 01:00:00.00 Sample Type: SOIL Energy Quad : 0.00000E+00



Channel Contents for DKA100: [GAMMA.SCUSR.ARCHIVE] SMP_111106817_GE1_GAS1102_1723

Channel

1:	0	0	0	0	0	0	0	0
9:	0	0	0	0	0	0	0	0
17:	0	1	173	286	292	444	598	409
25:	261	190	187	172	183	169	172	177
33:	182	170	187	189	184	199	166	203
41:	192	214	268	209	253	533	419	227
49:	248	287	241	273	390	310	282	256
57:	307	342	313	375	365	436	854	562
65:	367	384	453	420	410	382	420	456
73:	502	894	1431	885	2084	931	503	407
81:	453	376	401	595	392	413	778	587
89:	328	529	343	660	830	392	316	240
97:	228	276	268	227	216	214	235	202
105:	220	215	189	220	220	232	229	243
113:	258	230	197	229	232	228	207	245
121:	227	212	210	248	214	210	213	234
129:	242	242	217	229	221	215	220	220
137:	182	209	197	229	210	244	269	308
145:	237	216	208	197	200	234	213	212
153:	236	293	273	242	200	213	220	239
161:	217	183	232	198	181	211	172	195
169:	205	168	191	183	187	172	169	191
177:	178	189	179	183	174	185	196	216
185:	348	905	429	186	200	191	162	186
193:	180	180	171	157	187	169	195	183
201:	165	166	155	182	184	151	153	142
209:	208	186	141	159	134	130	151	140
217:	135	168	145	136	143	155	135	147
225:	131	148	131	128	129	104	124	152
233:	127	120	165	186	179	466	718	225
241:	362	810	336	134	127	109	99	100
249:	113	90	98	117	126	117	100	135
257:	110	131	164	95	101	90	113	109
265:	104	97	97	86	147	213	168	122
273:	112	124	118	123	111	115	75	87
281:	83	104	97	88	95	105	100	93
289:	90	78	100	109	108	296	1471	841
297:	123	113	118	163	97	82	75	76
305:	69	65	62	59	72	70	74	80
313:	83	86	81	70	66	63	82	62
321:	73	72	71	89	80	76	81	103
329:	74	95	71	78	74	71	86	74
337:	81	183	144	91	81	67	76	64
345:	66	69	78	77	108	128	879	2518
353:	779	118	96	103	76	45	50	48
361:	56	66	53	68	55	51	72	62
369:	59	52	55	63	77	53	60	50
377:	75	63	48	72	67	58	66	70
385:	58	66	77	79	73	66	78	61
393:	51	52	61	57	57	44	60	55
401:	78	84	54	46	77	72	54	58
409:	65	78	83	66	55	64	69	64
417:	63	73	62	72	49	69	50	63
425:	43	51	62	55	57	48	46	50

433:	55	41	43	49	50	48	38	40
441:	46	35	40	46	46	45	47	39
449:	45	40	42	38	53	43	68	40
457:	41	49	31	41	48	53	70	54
465:	41	45	32	44	36	40	39	38
473:	33	40	34	52	44	37	41	44
481:	50	49	32	44	37	45	47	45
489:	37	45	28	43	25	26	34	50
497:	32	49	33	28	31	37	24	39
505:	31	38	29	34	59	104	110	66
513:	56	40	35	33	36	25	35	43
521:	33	35	41	37	34	37	38	27
529:	26	28	32	38	34	44	35	27
537:	45	38	32	34	33	24	29	34
545:	33	31	34	20	35	36	27	36
553:	27	29	30	36	27	32	27	24
561:	34	21	40	44	30	23	29	36
569:	31	27	29	35	42	40	28	29
577:	28	24	27	50	38	74	194	141
585:	42	30	44	25	21	31	12	43
593:	33	25	32	31	22	33	35	25
601:	37	25	21	33	38	36	42	268
609:	1389	1220	182	50	58	51	29	31
617:	23	19	25	26	23	27	31	24
625:	18	24	16	32	29	13	21	22
633:	27	20	20	32	27	19	20	12
641:	26	20	23	20	20	28	22	11
649:	27	36	21	25	23	16	20	20
657:	20	26	20	32	39	45	35	37
665:	55	57	35	19	27	28	21	25
673:	24	29	14	25	29	21	23	17
681:	29	25	37	17	18	33	22	25
689:	29	16	15	21	37	21	39	14
697:	21	34	20	20	24	29	34	21
705:	32	24	25	20	30	23	22	20
713:	18	24	27	14	25	27	30	32
721:	28	24	27	22	23	27	54	46
729:	30	22	20	28	18	20	26	24
737:	17	24	26	21	19	29	34	21
745:	20	24	20	23	22	17	26	15
753:	23	26	23	28	24	27	26	23
761:	30	20	33	34	25	35	43	146
769:	121	41	21	23	32	20	16	11
777:	25	20	20	18	31	29	34	24
785:	50	51	42	27	24	12	24	18
793:	17	33	30	32	27	25	26	21
801:	15	19	22	26	21	42	40	25
809:	21	16	19	24	26	17	16	23
817:	26	19	21	18	19	17	18	17
825:	21	20	19	14	16	24	23	22
833:	18	16	28	20	23	19	37	24
841:	16	28	19	23	18	24	21	23
849:	19	18	29	20	22	25	17	28
857:	12	20	26	25	38	34	20	14
865:	15	20	17	21	12	24	19	17
873:	17	23	16	24	22	18	19	21
881:	17	20	24	15	22	14	30	15
889:	12	20	19	18	13	21	24	25
897:	17	28	14	25	25	18	20	17
905:	25	23	28	18	22	53	127	84

913:	34	22	15	22	16	20	17	16
921:	13	24	17	7	17	13	24	16
929:	12	16	14	21	38	82	61	23
937:	20	15	18	14	20	17	15	11
945:	20	18	19	23	21	18	15	15
953:	22	21	16	11	21	20	12	15
961:	21	14	23	36	32	26	21	40
969:	79	43	25	21	20	19	11	19
977:	21	14	15	9	12	14	17	16
985:	18	18	12	20	18	20	13	19
993:	15	16	9	12	19	10	11	25
1001:	34	28	17	23	15	12	15	19
1009:	18	20	16	10	10	23	20	13
1017:	14	19	16	20	9	13	13	16
1025:	16	18	9	20	17	14	12	12
1033:	8	22	11	18	23	13	8	23
1041:	15	17	12	17	18	11	11	17
1049:	15	14	20	23	19	14	14	16
1057:	13	14	9	10	12	20	15	16
1065:	26	18	11	11	15	13	19	17
1073:	19	9	9	17	17	14	18	14
1081:	17	16	10	8	16	17	16	12
1089:	14	12	19	12	11	13	16	18
1097:	9	10	20	11	11	15	11	15
1105:	11	16	17	12	14	11	23	18
1113:	21	8	12	14	12	20	96	269
1121:	261	73	23	17	22	15	10	15
1129:	15	13	14	14	13	18	10	13
1137:	12	18	13	12	13	13	17	17
1145:	15	12	13	9	12	14	17	19
1153:	22	24	43	44	23	14	21	18
1161:	11	18	16	10	13	13	16	20
1169:	15	9	21	20	11	21	18	13
1177:	16	12	14	17	17	20	11	14
1185:	17	12	11	10	6	11	12	20
1193:	8	18	15	9	7	16	11	21
1201:	9	16	12	15	26	11	18	19
1209:	19	15	10	11	18	11	11	12
1217:	12	20	10	21	12	12	16	19
1225:	15	13	10	17	13	14	26	15
1233:	15	18	14	22	37	117	99	29
1241:	20	14	12	16	14	18	9	17
1249:	10	12	14	20	21	10	7	5
1257:	17	7	16	11	9	15	15	13
1265:	11	10	11	10	19	11	11	14
1273:	11	6	11	11	17	8	26	15
1281:	38	26	19	8	13	12	12	15
1289:	13	9	10	5	10	12	9	12
1297:	6	8	9	12	8	10	11	15
1305:	18	16	9	10	8	8	4	14
1313:	8	11	8	11	11	4	10	12
1321:	11	13	16	9	4	7	8	8
1329:	12	7	6	8	11	9	4	9
1337:	8	14	14	6	9	4	12	4
1345:	10	9	7	5	8	15	6	11
1353:	9	7	10	5	7	9	4	4
1361:	5	11	6	8	10	9	10	5
1369:	9	12	10	10	10	10	7	17
1377:	60	91	34	17	8	4	4	6
1385:	23	16	13	7	5	7	6	5

1393:	12	3	6	10	12	7	9	9
1401:	20	33	6	8	7	11	25	48
1409:	32	14	11	7	10	7	13	8
1417:	5	11	7	7	11	6	5	4
1425:	11	8	7	12	7	8	12	16
1433:	10	4	11	10	9	5	4	5
1441:	10	9	6	6	8	2	3	5
1449:	8	9	8	8	6	5	17	10
1457:	9	11	29	182	370	237	31	18
1465:	14	11	12	6	10	6	11	6
1473:	8	12	3	6	5	8	10	8
1481:	5	9	4	6	6	4	13	6
1489:	7	14	6	5	9	9	14	10
1497:	9	8	7	6	6	12	4	3
1505:	4	8	8	13	38	41	17	10
1513:	5	9	7	9	7	7	6	10
1521:	11	6	15	4	4	6	3	10
1529:	7	7	7	8	4	12	9	10
1537:	7	12	15	7	12	14	13	12
1545:	11	4	10	5	4	7	6	1
1553:	7	1	8	5	6	7	6	7
1561:	13	6	7	14	7	8	4	5
1569:	6	7	4	10	7	5	4	7
1577:	3	6	5	5	7	10	26	17
1585:	8	6	4	13	9	11	6	10
1593:	7	7	12	7	7	7	9	10
1601:	7	5	10	3	3	3	7	5
1609:	8	11	6	6	4	5	4	6
1617:	4	6	7	3	8	6	3	9
1625:	3	5	6	1	5	9	11	8
1633:	5	3	9	7	1	4	4	3
1641:	2	4	5	3	3	2	2	1
1649:	3	3	6	6	1	2	0	3
1657:	5	6	7	4	14	28	12	5
1665:	2	4	6	4	2	1	5	1
1673:	3	3	6	2	4	2	3	0
1681:	3	5	6	1	8	4	2	2
1689:	1	5	5	6	6	8	6	1
1697:	1	5	4	8	0	2	3	1
1705:	3	4	2	1	0	2	3	5
1713:	3	0	1	3	4	3	4	2
1721:	6	3	4	2	6	0	3	20
1729:	30	39	25	5	2	5	5	5
1737:	4	1	5	2	2	7	4	1
1745:	1	2	2	3	2	2	3	2
1753:	2	0	4	2	2	4	5	0
1761:	4	13	55	185	188	85	24	6
1769:	5	5	0	2	0	1	2	2
1777:	0	1	4	0	2	1	3	1
1785:	1	2	2	2	4	4	6	2
1793:	1	0	1	1	5	3	4	2
1801:	0	1	6	2	2	0	2	1
1809:	3	2	3	1	2	1	2	5
1817:	2	1	1	1	1	1	1	3
1825:	3	4	1	3	1	1	1	3
1833:	1	1	4	1	0	6	5	1
1841:	4	3	0	5	2	13	27	20
1849:	15	4	7	4	1	0	3	4
1857:	0	2	5	3	4	2	1	1
1865:	3	1	1	5	2	0	3	2

1873:	5	2	5	6	5	9	5	1
1881:	5	1	3	5	2	4	4	2
1889:	3	7	7	3	2	1	7	5
1897:	4	1	0	4	2	2	1	1
1905:	1	0	3	1	5	1	2	1
1913:	3	3	1	6	2	2	2	6
1921:	2	0	1	3	6	0	4	3
1929:	5	2	1	2	4	3	2	3
1937:	4	3	2	2	3	2	0	1
1945:	2	2	3	0	3	2	3	5
1953:	4	3	2	0	7	1	1	3
1961:	2	4	1	1	2	2	2	4
1969:	5	3	4	3	3	2	3	1
1977:	3	4	1	4	3	1	3	2
1985:	2	2	5	0	3	0	4	3
1993:	1	2	6	1	3	4	4	1
2001:	1	2	1	0	2	3	5	2
2009:	3	3	4	3	1	2	0	4
2017:	3	3	2	0	1	2	1	4
2025:	4	3	4	1	2	2	5	0
2033:	2	2	1	3	4	2	4	2
2041:	3	3	2	2	5	0	0	4
2049:	0	2	5	5	3	2	0	1
2057:	1	3	1	2	0	3	3	3
2065:	2	1	1	1	1	0	1	0
2073:	1	3	2	0	1	2	2	4
2081:	1	2	2	1	1	0	2	2
2089:	1	3	0	2	1	1	2	1
2097:	0	1	0	2	2	1	4	8
2105:	4	2	1	0	3	2	2	1
2113:	2	1	2	4	6	13	15	3
2121:	6	2	3	2	0	2	2	2
2129:	1	1	1	1	5	0	1	1
2137:	1	0	2	0	1	3	2	1
2145:	1	1	3	1	2	2	0	2
2153:	1	1	0	0	1	2	0	0
2161:	1	1	1	1	4	2	3	0
2169:	1	3	2	0	1	0	0	3
2177:	1	2	3	0	2	2	1	0
2185:	0	3	1	2	4	0	0	3
2193:	4	2	0	2	0	2	2	0
2201:	1	7	32	48	44	22	4	1
2209:	2	5	0	1	0	3	1	1
2217:	2	0	1	1	1	0	4	1
2225:	2	1	0	0	2	2	2	1
2233:	2	4	0	1	0	1	3	1
2241:	1	1	0	1	0	1	2	0
2249:	1	1	2	2	1	0	0	0
2257:	0	3	1	1	1	1	0	0
2265:	0	0	2	1	1	0	3	0
2273:	0	2	2	1	0	1	1	2
2281:	0	0	2	3	3	1	2	3
2289:	0	1	2	2	6	1	5	1
2297:	1	1	1	0	0	3	1	0
2305:	0	1	3	0	0	2	2	1
2313:	1	1	1	1	4	0	2	1
2321:	1	1	0	1	2	1	1	2
2329:	2	0	1	4	1	0	0	5
2337:	1	3	0	1	1	1	1	3
2345:	1	1	1	1	2	1	1	1

2353:	3	0	1	0	2	2	2	0
2361:	4	1	1	2	0	1	0	2
2369:	5	0	1	0	2	4	2	3
2377:	0	0	1	2	3	0	1	0
2385:	1	2	2	2	0	1	1	0
2393:	1	1	1	1	2	0	1	1
2401:	1	0	0	1	1	1	0	1
2409:	0	3	4	2	0	0	2	3
2417:	0	1	1	1	1	0	1	1
2425:	1	1	2	1	0	1	0	2
2433:	0	1	0	2	0	2	1	0
2441:	0	1	2	0	1	5	8	18
2449:	6	2	0	1	0	0	0	1
2457:	1	1	1	1	1	3	0	0
2465:	0	1	1	0	1	0	0	1
2473:	0	0	1	1	1	0	1	1
2481:	1	0	2	0	0	1	3	2
2489:	0	3	2	0	0	0	0	1
2497:	0	0	2	1	1	0	0	0
2505:	0	0	0	0	1	0	3	1
2513:	0	1	1	0	0	0	0	1
2521:	0	0	1	1	1	0	0	0
2529:	0	1	0	2	1	0	0	0
2537:	0	1	2	0	0	0	0	0
2545:	0	1	0	0	0	0	1	1
2553:	0	1	0	1	1	0	2	0
2561:	1	0	0	0	0	0	1	0
2569:	0	1	0	0	2	0	0	2
2577:	0	0	0	0	1	0	0	0
2585:	0	0	2	1	0	0	0	0
2593:	0	0	0	1	2	1	0	1
2601:	0	0	2	0	0	0	0	1
2609:	2	1	1	0	15	32	47	20
2617:	9	5	0	0	1	0	2	1
2625:	1	0	0	0	1	0	1	0
2633:	0	0	0	0	0	0	0	0
2641:	1	0	1	1	0	0	1	0
2649:	0	0	0	1	0	0	0	0
2657:	0	0	0	1	0	1	0	0
2665:	0	0	1	0	0	1	0	3
2673:	0	0	1	0	0	0	1	0
2681:	0	0	1	0	0	2	1	0
2689:	2	0	0	0	1	0	1	2
2697:	0	0	0	0	4	0	0	0
2705:	0	0	2	0	0	0	0	1
2713:	1	0	0	4	0	1	0	1
2721:	0	0	2	1	1	0	1	2
2729:	0	0	0	1	0	0	0	0
2737:	0	0	0	0	1	0	0	2
2745:	0	0	0	0	1	0	0	1
2753:	0	1	0	2	0	0	0	0
2761:	0	0	1	0	0	0	0	0
2769:	0	0	1	1	0	0	0	0
2777:	0	0	0	0	1	0	1	1
2785:	0	0	0	0	0	0	0	0
2793:	0	1	0	0	1	0	1	0
2801:	0	0	1	0	0	0	0	0
2809:	0	0	0	0	0	0	0	1
2817:	0	0	0	0	0	0	0	0
2825:	0	0	0	0	0	0	0	0

2833:	0	0	1	0	1	0	0	0
2841:	1	0	1	0	0	0	0	0
2849:	0	1	1	0	1	0	1	0
2857:	0	0	1	2	0	0	0	0
2865:	0	0	2	0	0	0	0	0
2873:	0	0	0	0	1	0	0	0
2881:	0	0	0	0	0	0	0	1
2889:	0	0	0	0	0	0	0	1
2897:	0	0	0	1	1	0	0	2
2905:	1	1	0	0	0	0	0	0
2913:	0	0	0	0	0	0	0	0
2921:	0	1	0	0	0	0	0	0
2929:	0	0	0	0	0	0	1	1
2937:	0	0	0	0	1	0	0	0
2945:	1	0	0	0	1	0	0	0
2953:	0	0	0	0	0	0	2	1
2961:	0	0	0	1	0	1	1	0
2969:	0	0	0	0	0	2	0	0
2977:	1	0	0	0	0	1	0	1
2985:	0	0	0	1	0	0	0	0
2993:	0	0	0	1	0	0	0	0
3001:	0	0	0	1	0	1	1	0
3009:	0	0	0	0	0	1	2	1
3017:	0	0	0	0	0	1	0	0
3025:	0	0	0	0	0	0	0	0
3033:	0	2	0	0	0	0	0	1
3041:	1	0	0	1	0	0	0	0
3049:	1	0	0	0	0	1	0	0
3057:	0	0	0	1	0	0	0	2
3065:	0	0	0	0	0	0	1	1
3073:	0	0	1	0	0	0	0	0
3081:	1	0	0	0	0	0	0	0
3089:	0	1	0	0	0	0	0	0
3097:	0	0	0	0	0	0	0	0
3105:	0	0	1	0	1	1	1	0
3113:	0	0	0	0	0	0	0	0
3121:	0	0	1	0	1	1	2	0
3129:	0	1	0	0	0	0	0	1
3137:	0	0	0	0	0	0	0	1
3145:	0	0	0	1	0	0	0	1
3153:	0	0	0	1	0	1	0	0
3161:	0	0	0	0	0	0	0	0
3169:	0	0	0	0	0	0	1	2
3177:	0	0	0	0	1	0	0	0
3185:	0	0	0	0	0	0	1	0
3193:	0	1	0	0	3	0	2	0
3201:	0	0	0	0	0	1	0	0
3209:	0	0	0	0	0	0	0	0
3217:	0	0	0	1	0	0	0	0
3225:	0	0	0	0	1	1	0	0
3233:	1	0	0	1	0	1	0	0
3241:	0	0	0	1	0	0	0	0
3249:	1	0	0	0	0	0	1	0
3257:	2	0	0	0	2	0	0	1
3265:	0	0	0	0	0	0	0	1
3273:	0	1	0	0	0	0	0	0
3281:	0	0	0	1	0	1	0	0
3289:	1	1	0	1	0	1	1	1
3297:	0	0	0	1	0	0	0	0
3305:	0	1	0	0	0	0	0	0

3313:	0	1	0	0	1	0	1	0
3321:	0	2	0	0	0	0	0	0
3329:	0	0	1	0	0	0	1	0
3337:	0	0	1	0	0	0	1	0
3345:	0	1	0	0	1	0	1	0
3353:	0	0	0	1	0	0	0	0
3361:	1	0	1	0	0	1	1	1
3369:	0	0	0	1	0	1	0	0
3377:	1	1	0	0	0	0	0	0
3385:	0	0	0	0	1	0	0	1
3393:	0	0	2	1	0	0	1	0
3401:	0	1	0	0	0	1	0	0
3409:	0	0	0	0	0	0	0	0
3417:	0	0	1	0	0	0	0	0
3425:	1	0	0	0	0	0	0	0
3433:	0	0	0	0	1	0	0	1
3441:	0	0	0	0	0	1	0	0
3449:	0	0	0	1	1	0	0	0
3457:	0	0	1	0	0	0	1	0
3465:	0	0	0	1	1	0	0	0
3473:	0	0	0	0	0	0	0	0
3481:	0	0	0	0	0	0	0	0
3489:	0	0	0	0	0	0	0	0
3497:	0	0	0	0	0	0	1	0
3505:	0	0	0	0	0	1	0	0
3513:	0	0	0	0	0	0	0	0
3521:	0	1	1	0	1	0	1	0
3529:	0	1	0	0	2	0	0	0
3537:	0	0	1	0	0	0	0	0
3545:	0	0	0	0	1	0	0	0
3553:	0	0	0	0	0	0	0	0
3561:	1	1	1	0	1	1	0	0
3569:	0	0	0	0	0	0	0	0
3577:	0	1	0	0	0	0	0	0
3585:	0	0	0	0	0	0	0	0
3593:	0	0	0	0	0	0	0	0
3601:	0	0	0	0	0	0	0	0
3609:	0	0	0	0	0	0	1	0
3617:	0	0	0	0	0	0	0	0
3625:	0	1	0	0	0	0	0	1
3633:	1	0	0	0	0	0	0	0
3641:	0	0	0	0	0	0	1	0
3649:	0	0	0	0	1	1	0	0
3657:	0	0	0	1	0	0	0	0
3665:	1	0	1	0	1	0	0	0
3673:	1	0	0	0	0	1	0	0
3681:	0	0	0	0	0	0	0	0
3689:	1	0	0	0	0	0	0	0
3697:	0	0	0	0	1	0	0	0
3705:	0	0	0	0	0	0	0	0
3713:	0	1	0	1	1	1	0	0
3721:	0	1	0	0	1	1	0	0
3729:	0	1	0	0	0	0	0	0
3737:	0	0	0	0	0	0	0	0
3745:	1	0	0	0	0	0	0	1
3753:	1	0	0	1	0	0	1	0
3761:	0	0	0	0	0	1	0	0
3769:	0	0	0	0	0	0	0	0
3777:	0	0	0	0	0	0	1	0
3785:	0	0	1	0	0	0	0	0

3793:	0	0	0	0	0	0	1	0
3801:	0	0	0	0	0	0	0	0
3809:	0	0	0	0	1	0	0	0
3817:	1	1	0	0	1	0	0	0
3825:	0	0	0	0	0	1	0	0
3833:	0	0	0	0	0	0	0	1
3841:	0	2	0	0	0	0	0	0
3849:	0	0	0	0	0	0	0	0
3857:	0	0	0	1	0	0	0	0
3865:	0	0	0	0	0	0	0	0
3873:	0	0	0	0	0	0	0	0
3881:	0	0	0	0	0	0	0	1
3889:	0	2	1	0	0	0	0	0
3897:	0	1	0	0	0	0	0	0
3905:	0	0	0	0	0	1	0	1
3913:	0	0	0	0	0	0	1	0
3921:	0	0	0	0	0	0	0	0
3929:	0	0	0	0	0	0	0	0
3937:	0	0	0	0	0	0	0	0
3945:	0	0	0	0	0	0	0	0
3953:	0	0	0	0	0	0	0	0
3961:	1	0	0	1	1	0	0	0
3969:	0	0	0	0	0	0	0	1
3977:	0	0	0	0	0	0	0	0
3985:	0	0	0	0	0	0	0	1
3993:	0	0	0	0	0	0	0	0
4001:	0	0	0	1	0	0	0	0
4009:	1	0	0	0	0	0	0	0
4017:	0	0	0	0	1	0	0	1
4025:	0	0	0	0	0	0	0	0
4033:	0	0	0	0	0	0	1	0
4041:	1	2	0	0	0	0	0	0
4049:	0	1	0	0	0	0	0	0
4057:	0	0	0	0	0	0	1	0
4065:	0	1	0	1	0	0	0	0
4073:	0	0	0	0	0	0	0	0
4081:	0	0	0	0	0	0	0	0
4089:	0	2	0	1	0	0	0	0

QA filename : DKA100:[GAMMA.SCUSR.QA]QCB_GE1.QAF;1

Sample ID : Bkgrnd Check Sample quantity : 1.00 EACH
Sample date : 11-DEC-2011 10:25:33 Acquisition date : 11-DEC-2011 10:25:33
Elapsed live time: 0 00:15:00.00 Elapsed real time: 0 00:15:00.09

Out-of-range Test: N-SIGMA

Parameter Description	Value	Deviation	Flag
[Mean+/-Stdev]			
Background Counts	1833	-0.02	
[1838+/-225]			
Background Rate	2.04	-0.04	
[2.05+/-0.24]			

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: AG Approval Date: 12 / 11 / 11

QA filename : DKA100:[GAMMA.SCUSR.QA]QCB_GE2.QAF;1

Sample ID : Bkgrnd Check Sample quantity : 1.00 EACH
Sample date : 11-DEC-2011 10:01:39 Acquisition date : 11-DEC-2011 10:01:39
Elapsed live time: 0 00:15:00.00 Elapsed real time: 0 00:15:00.13

Out-of-range Test: N-SIGMA

Parameter Description	Value	Deviation	Flag
[Mean+/-Stdev]			
*Background Counts	2353	-0.18	
[3039+/-3853]			
*Background Rate	2.6	-0.05	
[33+/-558]			

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: AG Approval Date: 12 / 11 / 11

A²

QA filename : DKA100:[GAMMA.SCUSR.QA]QCB_GE3.QAF;1

Sample ID : Bkgrnd Check Sample quantity : 1.00 EACH
Sample date : 11-DEC-2011 10:02:28 Acquisition date : 11-DEC-2011 10:02:28
Elapsed live time: 0 00:15:00.00 Elapsed real time: 0 00:15:03.10

Out-of-range Test: N-SIGMA

Parameter Description	Value	Deviation	Flag
[Mean+/-Stdev]			
Background Counts	1.67E+03	-0.03	
[2.96E+03+/-4.23E+04]			
*Background Rate	1.8	-0.03	
[3.3+/-47]			

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: AG Approval Date: 12 / 11 / 11

QA filename : DKA100:[GAMMA.SCUSR.QA]QCB_GE4.QAF;1

Sample ID : Bkgrnd Check Sample quantity : 1.00 EACH
Sample date : 11-DEC-2011 10:02:52 Acquisition date : 11-DEC-2011 10:02:52
Elapsed live time: 0 00:15:00.00 Elapsed real time: 0 00:15:00.18

Out-of-range Test: N-SIGMA

Parameter Description	Value	Deviation	Flag
[Mean+/-Stdev]			
Background Counts	1425	0.02	
[1424+/-47]			
Background Rate	1.583	0.02	
[1.583+/-0.052]			

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: AG Approval Date: 12 / 11 / 11

QA filename : DKA100:[GAMMA.SCUSR.QA]QCC_GE1_GAS1102.QAF;1

Sample ID : Calib Check Sample quantity : 736. GRAM
Sample date : 1-JAN-2011 00:00:00 Acquisition date : 11-DEC-2011 10:02:09
Elapsed live time: 0 00:15:00.00 Elapsed real time: 0 00:15:20.96

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*Peak Centroid 59.54 keV	58	61	59	
*Peak Centroid 661.65 keV	660	663	662	
*Peak Centroid 1173.22 keV	1172	1175	1173	
*Peak Centroid 1332.49 keV	1331	1334	1333	
*Peak Centroid 1836.01 keV	1835	1838	1836	
*Peak FWHM Am-241 59.54 keV	0.5	3.0	1.7	
*Peak FWHM Cs-137 661.65 keV	0.5	3.0	1.8	
*Peak FWHM Co-60 1173.22 keV	0.5	3.0	2.1	
*Peak FWHM Co-60 1332.49 keV	0.5	3.0	2.1	
*Peak FWHM Y-88 1836.01 keV	0.5	3.0	2.4	
*DC Activity Am-241 59.54 keV	180	244	180	Below
*DC Activity Cs-137 661.65 keV	68	92	80	
*DC Activity Co-60 1173.22 keV	112	152	133	
*DC Activity Co-60 1332.49 keV	112	152	132	
*DC Activity Y-88 1836.01 keV	236	319	276	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: AG Approval Date: 12 / 11 / 11

QA filename : DKA100:[GAMMA.SCUSR.QA]QCC_GE2_GAS1102.QAF;1

Sample ID : Calib Check Sample quantity : 736. GRAM
Sample date : 1-JAN-2011 00:00:00 Acquisition date : 11-DEC-2011 10:26:10
Elapsed live time: 0 00:15:00.00 Elapsed real time: 0 00:15:15.80

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*Peak Centroid 59.54 keV	58	61	60	
*Peak Centroid 661.65 keV	660	663	662	
*Peak Centroid 1173.22 keV	1172	1175	1173	
*Peak Centroid 1332.49 keV	1331	1334	1332	
*Peak Centroid 1836.01 keV	1835	1838	1836	
*Peak FWHM Am-241 59.54 keV	0.5	3.0	1.6	
*Peak FWHM Cs-137 661.65 keV	0.5	3.0	1.7	
*Peak FWHM Co-60 1173.22 keV	0.5	3.0	2.1	
*Peak FWHM Co-60 1332.49 keV	0.5	3.0	2.2	
*Peak FWHM Y-88 1836.01 keV	0.5	3.0	2.5	
*DC Activity Am-241 59.54 keV	180	244	219	
*DC Activity Cs-137 661.65 keV	68	92	82	
*DC Activity Co-60 1173.22 keV	112	152	135	
*DC Activity Co-60 1332.49 keV	112	152	136	
*DC Activity Y-88 1836.01 keV	236	319	275	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: AG Approval Date: 12 / 11 / 11

QA filename : DKA100:[GAMMA.SCUSR.QA]QCC_GE3_GAS1102.QAF;1

Sample ID : Calib Check Sample quantity : 736. GRAM
Sample date : 1-JAN-2011 00:00:00 Acquisition date : 11-DEC-2011 10:52:08
Elapsed live time: 0 00:15:00.00 Elapsed real time: 0 00:15:48.14

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*Peak Centroid 59.54 keV	58	61	60	
*Peak Centroid 661.65 keV	660	663	662	
*Peak Centroid 1173.22 keV	1172	1175	1174	
*Peak Centroid 1332.49 keV	1331	1334	1333	
*Peak Centroid 1836.01 keV	1835	1838	1837	
*Peak FWHM Am-241 59.54 keV	0.5	3.0	1.3	
*Peak FWHM Cs-137 661.65 keV	0.5	3.0	1.6	
*Peak FWHM Co-60 1173.22 keV	0.5	3.0	2.1	
*Peak FWHM Co-60 1332.49 keV	0.5	3.0	2.1	
*Peak FWHM Y-88 1836.01 keV	0.5	3.0	2.5	
*DC Activity Am-241 59.54 keV	180	244	238	
*DC Activity Cs-137 661.65 keV	68	92	82	
*DC Activity Co-60 1173.22 keV	112	152	134	
*DC Activity Co-60 1332.49 keV	112	152	131	
*DC Activity Y-88 1836.01 keV	236	319	252	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: _____

AG

Approval Date: 12 / 11 / 11

QA filename : DKA100:[GAMMA.SCUSR.QA]QCC_GE4_GAS1102.QAF;1
Sample ID : Calib Check Sample quantity : 736. GRAM
Sample date : 1-JAN-2011 00:00:00 Acquisition date : 11-DEC-2011 11:10:31
Elapsed live time: 0 00:15:00.00 Elapsed real time: 0 00:15:17.20

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*Peak Centroid 59.54 kev	58	61	59	
*Peak Centroid 661.65 kev	660	663	662	
*Peak Centroid 1173.22 kev	1172	1175	1174	
*Peak Centroid 1332.49 kev	1331	1334	1333	
*Peak Centroid 1836.01 kev	1835	1838	1838	Above
*Peak FWHM Am-241 59.54 kev	0.5	3.0	2.1	
*Peak FWHM Cs-137 661.65 kev	0.5	3.0	2.1	
*Peak FWHM Co-60 1173.22 kev	0.5	3.0	2.4	
*Peak FWHM Co-60 1332.49 kev	0.5	3.0	2.4	
*Peak FWHM Y-88 1836.01 kev	0.5	3.0	2.6	
*DC Activity Am-241 59.54 kev	180	244	219	
*DC Activity Cs-137 661.65 kev	68	92	82	
*DC Activity Co-60 1173.22 kev	112	152	138	
*DC Activity Co-60 1332.49 kev	112	152	140	
*DC Activity Y-88 1836.01 kev	236	319	294	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: AG Approval Date: 12/11/11



December 1, 2011

Ms. Kristie Warr
Weston Solutions, Inc.
5599 San Felipe, Ste. 700
Houston, TX 77056

Re: ALS Workorder: 11-11-160
Project Name: Section 12 Uranium Mine
Project Number: TO 0035110902-111110-0001

Dear Ms. Warr:

Fourteen soil and one water samples were received from Weston Solutions, Inc. on November 11, 2011. The samples were scheduled for the following analysis:

Metals pages 1-618

The results for this analysis are contained in the enclosed report.

Thank you for your confidence in ALS Environmental. Should you have any questions, please call.

Sincerely,

ALS Environmental
Lance Steere
Senior Project Manager

LRS/eg
Enclosure (s): Report

ALS is accredited by the following accreditation bodies for various testing scopes in accordance with requirements of each accreditation body. All testing is performed under the laboratory management system, which is maintained to meet these requirement and regulations. Please contact the laboratory or accreditation body for the current scope testing parameters.

Accreditation Body	License or Certification Number
Washington	C1280
Utah	CO00078
Arizona	AZ0742
Alaska	UST-086
Alaska	CO00078
Florida	E87914
Missouri	175
North Dakota	R-057
New Jersey	CO003
Nevada	CO000782008A
California	06251CA
Kansas	E-10381
Maryland	285
Pennsylvania	68-03116
Texas	T104704241-09-1
Colorado	CO00078
Connecticut	PH-0232
Idaho	CO00078
Tennessee	2976
Kentucky	90137
L-A-B (DoD ELAP/ISO 17025)	L2257

ALS Environmental -- FC

Sample Number(s) Cross-Reference Table

OrderNum: 1111160

Client Name: Weston Solutions, Inc.

Client Project Name: Section 12 Uranium Mine

Client Project Number: TO0035110902-111110-0001

Client PO Number:

Client Sample Number	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
ALSW-01-111107	1111160-1		WATER	07-Nov-11	15:00
BKGD-E-31-111107	1111160-2		SOIL	07-Nov-11	15:06
BKGD-N-31-111107	1111160-3		SOIL	07-Nov-11	15:18
BKGD-S-31-111107	1111160-4		SOIL	07-Nov-11	15:45
BKGD-W-31-111107	1111160-5		SOIL	07-Nov-11	15:25
S12-12-31-111107	1111160-6		SOIL	07-Nov-11	14:20
S12-14-31-111107	1111160-7		SOIL	07-Nov-11	14:25
S12-22-31-111107	1111160-8		SOIL	07-Nov-11	14:40
S12-33-31-111107	1111160-9		SOIL	07-Nov-11	14:14
S12-34-31-111107	1111160-10		SOIL	07-Nov-11	14:12
S12-34-32-111107	1111160-11		SOIL	07-Nov-11	14:12
S12-35-31-111107	1111160-12		SOIL	07-Nov-11	14:10
S12-52-31-111107	1111160-13		SOIL	07-Nov-11	14:56
S12-56-31-111107	1111160-14		SOIL	07-Nov-11	14:49
S12-64-31-111107	1111160-15		SOIL	07-Nov-11	14:52



CONDITION OF SAMPLE UPON RECEIPT FORM

Client: Weston

Workorder No: 1111160

Project Manager: LRS

Initials: LAS Date: 11/11/11

1. Does this project require any special handling in addition to standard Paragon procedures?		YES	<input checked="" type="radio"/> NO
2. Are custody seals on shipping containers intact?	NONE	<input checked="" type="radio"/> YES	NO
3. Are Custody seals on sample containers intact?	<input checked="" type="radio"/> NONE	YES	NO
4. Is there a COC (Chain-of-Custody) present or other representative documents?		<input checked="" type="radio"/> YES	NO
5. Are the COC and bottle labels complete and legible ?		<input checked="" type="radio"/> YES	NO
6. Is the COC in agreement with samples received? (IDs, dates, times, no. of samples, no. of containers, matrix, requested analyses, etc.)		<input checked="" type="radio"/> YES	NO
7. Were airbills / shipping documents present and/or removable?	DROP OFF	<input checked="" type="radio"/> YES	NO
8. Are all aqueous samples requiring preservation preserved correctly? (excluding volatiles)	N/A	YES	<input checked="" type="radio"/> NO *
9. Are all aqueous non-preserved samples pH 4-9 ?	<input checked="" type="radio"/> N/A	YES	NO
10. Is there sufficient sample for the requested analyses?		<input checked="" type="radio"/> YES	NO
11. Were all samples placed in the proper containers for the requested analyses?		<input checked="" type="radio"/> YES	NO
12. Are all samples within holding times for the requested analyses?		<input checked="" type="radio"/> YES	NO
13. Were all sample containers received intact? (not broken or leaking, etc.)		<input checked="" type="radio"/> YES	NO
14. Are all samples requiring no headspace (VOC, GRO, RSK/MEE, Rx CN/S, radon) headspace free? Size of bubble: ___ < green pea ___ > green pea	<input checked="" type="radio"/> N/A	YES	NO
15. Do perchlorate LCMS-MS samples have headspace? (at least 1/3 of container required)	<input checked="" type="radio"/> N/A	YES	NO
16. Were samples checked for and free from the presence of residual chlorine? (Applicable when PM has indicated samples are from a chlorinated water source; note if field preservation with sodium thiosulfate was not observed.)	<input checked="" type="radio"/> N/A	YES	NO
17. Were the samples shipped on ice?		<input checked="" type="radio"/> YES	NO
18. Were cooler temperatures measured at 0.1-6.0°C?	IR gun used*: <input checked="" type="radio"/> #2 #4	RAD ONLY	<input checked="" type="radio"/> YES NO
Cooler #: <u>1</u>			
Temperature (°C): <u>0.4</u>			
No. of custody seals on cooler: <u>1</u>			
External µR/hr reading: <u>15</u>			
Background µR/hr reading: <u>12</u>			
Were external µR/hr readings ≤ two times background and within DOT acceptance criteria? <input checked="" type="radio"/> YES <input type="radio"/> NO <input type="radio"/> NA (If no, see Form 008.)			

Additional Information: PROVIDE DETAILS BELOW FOR A NO RESPONSE TO ANY QUESTION ABOVE, EXCEPT #1 AND #16.
 (*1111160-1-1 (ALSW-01-111107) arrived with pH=2.5 (for metals) At 1125 on 11/11/11, 20µl added 1.0mL HNO₃ (Lot # J41037) Final pH < 2 (Sample is somewhat sedimented)

If applicable, was the client contacted? YES / NO / NA Contact: K. Warr Date/Time: _____
 Project Manager Signature / Date: [Signature] 11/11/11

111160

From: (903) 348-3917
Patrick Buster
START6- Weston Solutions, Inc.
825 E. Santa Fe Ave.

Origin ID: GUPA



J11301108050225

Grants, NM 87020

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225 Commerce Drive

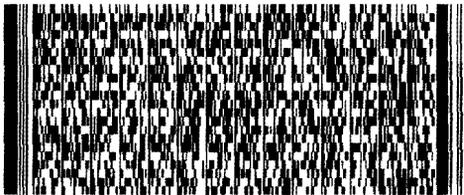
Fort Collins, CO 80524

Ref # 20406.016.035.0673.01
Invoice #
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FRI - 11 NOV A2
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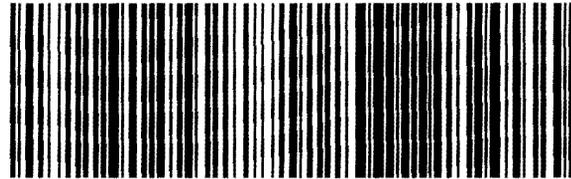
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15
- 1



Metals

Case Narrative

Weston Solutions, Inc.

Section 12 Uranium Mine -- TO0035110902-111110-0001

Work Order Number: 1111160

1. This report consists of 1 water sample and 14 soil samples.
2. The samples were received cool and intact by ALS on 11/11/11.
3. The water sample did not have a pH less than 2 upon receipt. The sample was preserved with nitric acid to a pH less than two upon receipt.
4. The samples were prepared and analyzed based on SW-846, 3rd Edition procedures.

The initial sample aliquots consisted of a fine grained, sandy matrix. Rocks, chunks, and vegetable material were not used. The samples were not air dried, ground, or sieved.

For analysis by Trace ICP and ICP-MS, the water sample was digested following method 3005A and SOP 806 Rev. 15. The soil samples were digested following method 3050B and SOP 806 Rev. 15.

For analysis by Cold Vapor AA (CVAA), the water sample was digested following method 7470A and SOP 812 Rev. 15. The soil samples were digested following method 7471A and SOP 812 Rev. 15.

5. Analysis by Trace ICP followed method 6010B and SOP 834 Rev. 8.

Analysis by ICP-MS followed method 6020A and SOP 827 Rev. 7.

Water analysis by CVAA followed method 7470A and SOP 812 Rev. 15. Soil analysis by CVAA followed method 7471A and SOP 812 Rev. 15.

6. All standards and solutions are NIST traceable and were used within their recommended shelf life.



7. The samples were prepared and analyzed within the established hold times.

All in house quality control procedures were followed, as described below.

8. General quality control procedures.

- A preparation (method) blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- The preparation (method) blank associated with each digestion batch was below the reporting limit for the requested analytes.
- All laboratory control sample criteria were met.
- All initial and continuing calibration blanks were below the practical quantitation limits for the requested analytes.
- All initial and continuing calibration verifications were within the acceptance criteria for the requested analytes.
- The high standard readbacks associated with Method 6010B and 6020A analyses were within acceptance criteria.
- The interference check samples associated with Method 6010B were within acceptance criteria.
- The interference check samples associated with Method 6020A were analyzed.

9. Matrix specific quality control procedures.

Sample 1111160-2 was designated as the quality control sample for the Trace ICP and ICP-MS soil analyses. Sample 1111160-3 was designated as the quality control sample for the mercury soil analysis. Per method requirements, matrix QC was performed for the water analyses. Since a sample from this order number was not the selected quality control (QC) sample, matrix specific QC results are not included in this report.

Similarity of matrix and therefore relevance of the QC results should not be automatically inferred for any sample other than the native sample selected for QC.

- A matrix spike and matrix spike duplicate were digested and analyzed with each soil batch. All acceptance criteria for accuracy were met with the following exceptions:

<u>Analyte</u>	<u>Sample ID</u>
Antimony	1111160-2MS & MSD
Barium	1111160-2MS & MSD
Potassium	1111160-2MSD
Zinc	1111160-2MS & MSD

The native sample results are flagged for matrix spike failure and an analytical post spike was performed. The results of the spike for antimony and potassium were acceptable indicating that the matrix was not significantly affecting quantitation of these



analytes. The results of the spike for barium and zinc were unacceptable indicating that the matrix may be affecting quantitation of these analytes.

- Matrix spike recoveries could not be evaluated for the following analytes:

<u>Analyte</u>	<u>Sample ID</u>
Aluminum	1111160-2
Calcium	1111160-2
Iron	1111160-2
Manganese	1111160-2
Uranium	1111160-2

The concentrations of these analytes in the native sample were greater than four times the concentration of matrix spike added during the digestion. When sample concentration is that much greater than the spike added, spike recoveries may not be accurate. The laboratory control sample indicates that the digestion and analysis were in control.

- A sample duplicate and matrix spike duplicate were digested and analyzed with each soil batch. All acceptance criteria for precision were met with the following exceptions:

<u>Analyte</u>	<u>Sample ID</u>
Barium	1111160-2D
Sodium	1111160-2D
Zinc	1111160-2D

The native sample results are flagged for duplicate failure.

- A serial dilution was analyzed with each ICP soil batch. All acceptance criteria were met with the following exception:

<u>Analyte</u>	<u>Sample ID</u>
Potassium	1111160-2L

The native sample result is flagged for serial dilution failure.

- Samples 1111160-3, -4, and -5 required dilutions to bring iron into the analytical range of the Trace ICP. Accurate quantitation of iron is necessary to correct for spectral interferences on lead, selenium, thallium, and vanadium. The lead, selenium, thallium, and vanadium results were determined from the diluted samples.

It is a standard practice that samples for ICP-MS are analyzed at a dilution. Samples 1111160-6 through -15 required further dilutions to bring uranium into the analytical range of the ICP-MS.



The data contained in the following report have been reviewed and approved by the personnel listed below. In addition, ALS certifies that the analyses reported herein are true, complete and correct within the limits of the methods employed.

Megan Johnson
Megan Johnson
Inorganics Primary Data Reviewer

11/30/11
Date

[Signature]
Inorganics Final Data Reviewer

11/30/11
Date



Inorganic Data Reporting Qualifiers

The following qualifiers are used by the laboratory when reporting results of inorganic analyses.

- Result qualifier -- If the analyte was analyzed for but not detected a "U" is entered.
- QC qualifier -- Specified entries and their meanings are as follows:
 - E - The reported value is estimated because of the presence of interference. An explanatory note may be included in the narrative.
 - M - Duplicate injection precision was not met.
 - N - Spiked sample recovery not within control limits. A post spike is analyzed for all ICP analyses when the matrix spike and or spike duplicate fail and the native sample concentration is less than four times the spike added concentration.
 - Z - Spiked recovery not within control limits. An explanatory note may be included in the narrative.
 - * - Duplicate analysis (relative percent difference) not within control limits.



Chain of Custody

ALS Environmental -- FC

Sample Number(s) Cross-Reference Table

OrderNum: 1111160

Client Name: Weston Solutions, Inc.

Client Project Name: Section 12 Uranium Mine

Client Project Number: TO0035110902-111110-0001

Client PO Number: 0077656

Client Sample Number	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
ALSW-01-111107	1111160-1		WATER	07-Nov-11	15:00
BKGD-E-31-111107	1111160-2		SOIL	07-Nov-11	15:06
BKGD-N-31-111107	1111160-3		SOIL	07-Nov-11	15:18
BKGD-S-31-111107	1111160-4		SOIL	07-Nov-11	15:45
BKGD-W-31-111107	1111160-5		SOIL	07-Nov-11	15:25
S12-12-31-111107	1111160-6		SOIL	07-Nov-11	14:20
S12-14-31-111107	1111160-7		SOIL	07-Nov-11	14:25
S12-22-31-111107	1111160-8		SOIL	07-Nov-11	14:40
S12-33-31-111107	1111160-9		SOIL	07-Nov-11	14:14
S12-34-31-111107	1111160-10		SOIL	07-Nov-11	14:12
S12-34-32-111107	1111160-11		SOIL	07-Nov-11	14:12
S12-35-31-111107	1111160-12		SOIL	07-Nov-11	14:10
S12-52-31-111107	1111160-13		SOIL	07-Nov-11	14:56
S12-56-31-111107	1111160-14		SOIL	07-Nov-11	14:49
S12-64-31-111107	1111160-15		SOIL	07-Nov-11	14:52

111160

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CHAIN OF CUSTODY RECORD

Section 12 Uranium Mine
 Contact Name: Kristie Warr
 Contact Phone: 713-985-6636

No: TO0035110902-111110-0001

Cooler #: 1
 Lab: ALS Laboratory Group
 Lab Phone: 970-490-1511

Lab #	Sample #	Analyses	Matrix	Collected	Sample Time	Container	MS/MSD	Samp_Concentration
①	ALSW-01-111107	Metals, Mercury, Molybdenum, Tin, Total Uranium	Surface Water	11/7/2011	15:00	500mL Polyethylene	N	<20,000 cpm
②	BKGD-E-31-111107	Metals, Mercury, Molybdenum, Tin, Total Uranium	Soil	11/7/2011	15:06	Jar	N	41,447 cpm
③	BKGD-N-31-111107	Metals, Mercury, Molybdenum, Tin, Total Uranium	Soil	11/7/2011	15:18	Jar	N	18,444 cpm
④	BKGD-S-31-111107	Metals, Mercury, Molybdenum, Tin, Total Uranium	Soil	11/7/2011	15:45	Jar	N	15,785 cpm
⑤	BKGD-W-31-111107	Metals, Mercury, Molybdenum, Tin, Total Uranium	Soil	11/7/2011	15:25	Jar	N	17,800 cpm
⑥	S12-12-31-111107	Metals, Mercury, Molybdenum, Tin, Total Uranium	Soil	11/7/2011	14:20	Jar	N	74,861 cpm
⑦	S12-14-31-111107	Metals, Mercury, Molybdenum, Tin, Total Uranium	Soil	11/7/2011	14:25	Jar	N	144,468 cpm
⑧	S12-22-31-111107	Metals, Mercury, Molybdenum, Tin, Total Uranium	Soil	11/7/2011	14:40	Jar	N	136,438 cpm
⑨	S12-33-31-111107	Metals, Mercury, Molybdenum, Tin, Total Uranium	Soil	11/7/2011	14:14	Jar	N	231,451 cpm
⑩	S12-34-31-111107	Metals, Mercury, Molybdenum, Tin, Total Uranium	Soil	11/7/2011	14:12	Jar	N	241,022 cpm
⑪	S12-34-32-111107	Metals, Mercury, Molybdenum, Tin, Total Uranium	Soil	11/7/2011	14:12	Jar	N	241,022 cpm

Special Instructions: Standard TAT, SW846 6010/6020
 SW846 7470/7471

SAMPLES TRANSFERRED FROM
 CHAIN OF CUSTODY #

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
15 samples	<i>[Signature]</i>	11/9/11	<i>[Signature]</i>	11/11/11	1015						

111160

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 DateShipped: 11/10/2011
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CHAIN OF CUSTODY RECORD
 Section 12 Uranium Mine
 Contact Name: Kristie Warr
 Contact Phone: 713-985-6636

No: TO0035110902-111110-0001
 Cooler #: 1
 Lab: ALS Laboratory Group
 Lab Phone: 970-490-1511

Lab #	Sample #	Analyses	Matrix	Collected	Sample Time	Container	MS/MSD	Samp_Concentration
12	S12-35-31-111107	Metals, Mercury, Molybdenum, Tin, Total Uranium	Soil	11/7/2011	14:10	Jar	N	203,006 cpm
13	S12-52-31-111107	Metals, Mercury, Molybdenum, Tin, Total Uranium	Soil	11/7/2011	14:56	Jar	N	137,567 cpm
14	S12-56-31-111107	Metals, Mercury, Molybdenum, Tin, Total Uranium	Soil	11/7/2011	14:49	Jar	N	106,454 cpm
15	S12-64-31-111107	Metals, Mercury, Molybdenum, Tin, Total Uranium	Soil	11/7/2011	14:52	Jar	N	38,998 cpm

Special Instructions: Standard TAT, SW846 6010/6020
 SW846 7470/7471

SAMPLES TRANSFERRED FROM
 CHAIN OF CUSTODY #

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
15/samples	ER	11/9/11	[Signature]	11/11/11	1015						



CONDITION OF SAMPLE UPON RECEIPT FORM

Client: Weston

Workorder No: 1111160

Project Manager: LRS

Initials: LAS Date: 11/11/11

1. Does this project require any special handling in addition to standard Paragon procedures?		YES	<input checked="" type="radio"/> NO
2. Are custody seals on shipping containers intact?	NONE	<input checked="" type="radio"/> YES	NO
3. Are Custody seals on sample containers intact?	<input checked="" type="radio"/> NONE	YES	NO
4. Is there a COC (Chain-of-Custody) present or other representative documents?		<input checked="" type="radio"/> YES	NO
5. Are the COC and bottle labels complete and legible?		<input checked="" type="radio"/> YES	NO
6. Is the COC in agreement with samples received? (IDs, dates, times, no. of samples, no. of containers, matrix, requested analyses, etc.)		<input checked="" type="radio"/> YES	NO
7. Were airbills / shipping documents present and/or removable?	DROP OFF	<input checked="" type="radio"/> YES	NO
8. Are all aqueous samples requiring preservation preserved correctly? (excluding volatiles)	N/A	YES	<input checked="" type="radio"/> NO
9. Are all aqueous non-preserved samples pH 4-9?	<input checked="" type="radio"/> N/A	YES	NO
10. Is there sufficient sample for the requested analyses?		<input checked="" type="radio"/> YES	NO
11. Were all samples placed in the proper containers for the requested analyses?		<input checked="" type="radio"/> YES	NO
12. Are all samples within holding times for the requested analyses?		<input checked="" type="radio"/> YES	NO
13. Were all sample containers received intact? (not broken or leaking, etc.)		<input checked="" type="radio"/> YES	NO
14. Are all samples requiring no headspace (VOC, GRO, RSK/MEE, Rx CN/S, radon) headspace free? Size of bubble: ___ < green pea ___ > green pea	<input checked="" type="radio"/> N/A	YES	NO
15. Do perchlorate LCMS-MS samples have headspace? (at least 1/3 of container required)	<input checked="" type="radio"/> N/A	YES	NO
16. Were samples checked for and free from the presence of residual chlorine? (Applicable when PM has indicated samples are from a chlorinated water source; note if field preservation with sodium thiosulfate was not observed.)	<input checked="" type="radio"/> N/A	YES	NO
17. Were the samples shipped on ice?		<input checked="" type="radio"/> YES	NO
18. Were cooler temperatures measured at 0.1-6.0°C? IR gun used*: <input checked="" type="radio"/> #2 <input type="radio"/> #4 RAD ONLY		<input checked="" type="radio"/> YES	NO
Cooler #: <u>1</u>			
Temperature (°C): <u>0.4</u>			
No. of custody seals on cooler: <u>1</u>			
External µR/hr reading: <u>15</u>			
Background µR/hr reading: <u>12</u>			
Were external µR/hr readings ≤ two times background and within DOT acceptance criteria? <input checked="" type="radio"/> YES / NO / NA (If no, see Form 008.)			

Additional Information: PROVIDE DETAILS BELOW FOR A NO RESPONSE TO ANY QUESTION ABOVE, EXCEPT #1 AND #16.

(*) 1111160-1-1 (ALSW-01-111107) arrived with pH = 2.5 (for metals) At 1125 on 11/11/11 LRS added 1.0 mL HNO3 (Lot # J41037) Final pH < 2 (Sample is somewhat sedimented)

If applicable, was the client contacted? YES / NO / NA Contact: K. Warr Date/Time: _____

Project Manager Signature / Date: [Signature] 11/11/11

111160

From: (903) 348-3917
Patrick Buster
START6-Weston Solutions, Inc
825 E Santa Fe Ave
Grants, NM 87020

Origin ID: GUPA



Ship Date: 10NOV11
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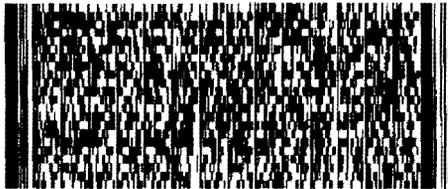
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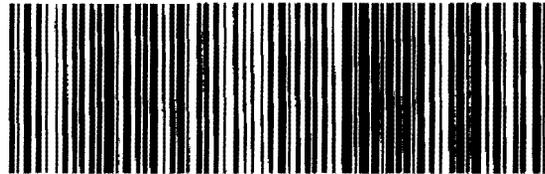
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Sample Results

Total Recoverable ICP Metals

Method SW6010B

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Field ID: ALSW-01-111107
Lab ID: 1111160-1

Sample Matrix: WATER
% Moisture: N/A
Date Collected: 07-Nov-11
Date Extracted: 16-Nov-11
Date Analyzed: 17-Nov-11
Prep Method: SW3005 Rev A

Prep Batch: IP111116-4
QCBatchID: IP111116-4-5
Run ID: IT111117-2A1
Cleanup: NONE
Basis: As Received
File Name: 111117A.

Sample Allquot: 50G
Final Volume: 50G
Result Units: MG/L
Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	Reporting Limit	Result Qualifier	EPA Qualifier
7429-90-5	ALUMINUM	1	77	0.2		
7440-36-0	ANTIMONY	1	0.02	0.02	U	
7440-38-2	ARSENIC	1	0.052	0.01		
7440-39-3	BARIUM	1	1.1	0.1		
7440-41-7	BERYLLIUM	1	0.0092	0.005		
7440-43-9	CADMIUM	1	0.005	0.005	U	
7440-70-2	CALCIUM	1	230	1		
7440-47-3	CHROMIUM	1	0.061	0.01		
7440-48-4	COBALT	1	0.061	0.01		
7440-50-8	COPPER	1	0.14	0.01		
7439-89-6	IRON	1	140	0.1		
7439-92-1	LEAD	1	0.16	0.003		
7439-95-4	MAGNESIUM	1	47	1		
7439-96-5	MANGANESE	1	1.9	0.01		
7439-98-7	MOLYBDENUM	1	0.01	0.01	U	
7440-02-0	NICKEL	1	0.1	0.02		
7440-09-7	POTASSIUM	1	42	1		
7782-49-2	SELENIUM	1	0.005	0.005	U	
7440-22-4	SILVER	1	0.01	0.01	U	
7440-23-5	SODIUM	1	18	1		
7440-28-0	THALLIUM	1	0.01	0.01	U	
7440-31-5	TIN	1	0.05	0.05	U	
7440-62-2	VANADIUM	1	0.19	0.01		
7440-66-6	ZINC	1	0.42	0.02		

Data Package ID: #1111160-1

Total ICP Metals

Method SW6010B

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Field ID: BKGD-E-31-111107
Lab ID: 1111160-2

Sample Matrix: SOIL
% Moisture: 6.5
Date Collected: 07-Nov-11
Date Extracted: 17-Nov-11
Date Analyzed: 18-Nov-11
Prep Method: SW3050 Rev B

Prep Batch: IP111117-1
QCBatchID: IP111117-1-3
Run ID: IT111118-2A1
Cleanup: NONE
Basis: Dry Weight
File Name: 111118A.

Sample Allquot: 1.02G
Final Volume: 100ML
Result Units: MG/KG
Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	Reporting Limit	Result Qualifier	EPA Qualifier
7429-90-5	ALUMINUM	1	12000	21		
7440-36-0	ANTIMONY	1	2.1	2.1	U	N
7440-38-2	ARSENIC	1	5.9	1		
7440-39-3	BARIUM	1	270	10		*N
7440-41-7	BERYLLIUM	1	0.78	0.52		
7440-43-9	CADMIUM	1	0.52	0.52	U	
7440-70-2	CALCIUM	1	20000	100		
7440-47-3	CHROMIUM	1	9	1		
7440-48-4	COBALT	1	5.6	1		
7440-50-8	COPPER	1	13	1		
7439-89-6	IRON	1	19000	10		
7439-92-1	LEAD	1	15	0.31		
7439-95-4	MAGNESIUM	1	4400	100		
7439-96-5	MANGANESE	1	220	1		
7439-98-7	MOLYBDENUM	1	1	1	U	
7440-02-0	NICKEL	1	12	2.1		
7440-09-7	POTASSIUM	1	4900	100		EN
7782-49-2	SELENIUM	1	2.1	0.52		
7440-22-4	SILVER	1	1	1	U	
7440-23-5	SODIUM	1	900	100		*
7440-28-0	THALLIUM	1	1.1	1		
7440-31-5	TIN	1	5.2	5.2	U	
7440-62-2	VANADIUM	1	22	1		
7440-66-6	ZINC	1	140	2.1		*N

Data Package ID: it1111160-1

Total ICP Metals

Method SW6010B

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Field ID: BKGD-N-31-111107
Lab ID: 1111160-3

Sample Matrix: SOIL
% Moisture: 6.6
Date Collected: 07-Nov-11
Date Extracted: 17-Nov-11
Date Analyzed: 18-Nov-11
Prep Method: SW3050 Rev B

Prep Batch: IP111117-1
QCBatchID: IP111117-1-3
Run ID: IT111118-2A1
Cleanup: NONE
Basis: Dry Weight
File Name: 111118A.

Sample Aliquot: 1.028G
Final Volume: 100ML
Result Units: MG/KG
Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	Reporting Limit	Result Qualifier	EPA Qualifier
7429-90-5	ALUMINUM	1	15000	21		
7440-36-0	ANTIMONY	1	2.1	2.1	U	
7440-38-2	ARSENIC	1	7	1		
7440-39-3	BARIUM	1	120	10		
7440-41-7	BERYLLIUM	1	1	0.52		
7440-43-9	CADMIUM	1	0.52	0.52	U	
7440-70-2	CALCIUM	1	17000	100		
7440-47-3	CHROMIUM	1	11	1		
7440-48-4	COBALT	1	7.4	1		
7440-50-8	COPPER	1	16	1		
7439-89-6	IRON	5	22000	52		
7439-92-1	LEAD	5	17	1.6		
7439-95-4	MAGNESIUM	1	5200	100		
7439-96-5	MANGANESE	1	230	1		
7439-98-7	MOLYBDENUM	1	1	1	U	
7440-02-0	NICKEL	1	15	2.1		
7440-09-7	POTASSIUM	1	4400	100		
7782-49-2	SELENIUM	5	2.6	2.6	U	
7440-22-4	SILVER	1	1	1	U	
7440-23-5	SODIUM	1	110	100		
7440-28-0	THALLIUM	5	5.2	5.2	U	
7440-31-5	TIN	1	5.2	5.2	U	
7440-62-2	VANADIUM	5	19	5.2		
7440-66-6	ZINC	1	59	2.1		

Data Package ID: #1111160-1

Total ICP Metals

Method SW6010B

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Field ID: BKGD-S-31-111107
Lab ID: 1111160-4

Sample Matrix: SOIL
 % Moisture: 6.9
 Date Collected: 07-Nov-11
 Date Extracted: 17-Nov-11
 Date Analyzed: 18-Nov-11
 Prep Method: SW3050 Rev B

Prep Batch: IP111117-1
 QCBatchID: IP111117-1-3
 Run ID: IT111118-2A1
 Cleanup: NONE
 Basis: Dry Weight
 File Name: 111118A.

Sample Aliquot: 1.018G
 Final Volume: 100ML
 Result Units: MG/KG
 Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	Reporting Limit	Result Qualifier	EPA Qualifier
7429-90-5	ALUMINUM	1	14000	21		
7440-36-0	ANTIMONY	1	2.1	2.1	U	
7440-38-2	ARSENIC	1	6.2	1.1		
7440-39-3	BARIUM	1	120	11		
7440-41-7	BERYLLIUM	1	1	0.53		
7440-43-9	CADMIUM	1	0.53	0.53	U	
7440-70-2	CALCIUM	1	16000	110		
7440-47-3	CHROMIUM	1	11	1.1		
7440-48-4	COBALT	1	7.1	1.1		
7440-50-8	COPPER	1	16	1.1		
7439-89-6	IRON	5	22000	53		
7439-92-1	LEAD	5	22	1.6		
7439-95-4	MAGNESIUM	1	5200	110		
7439-96-5	MANGANESE	1	200	1.1		
7439-98-7	MOLYBDENUM	1	1.1	1.1	U	
7440-02-0	NICKEL	1	14	2.1		
7440-09-7	POTASSIUM	1	3900	110		
7782-49-2	SELENIUM	5	2.6	2.6	U	
7440-22-4	SILVER	1	1.1	1.1	U	
7440-23-5	SODIUM	1	110	110	U	
7440-28-0	THALLIUM	5	5.3	5.3	U	
7440-31-5	TIN	1	5.3	5.3	U	
7440-62-2	VANADIUM	5	17	5.3		
7440-66-6	ZINC	1	59	2.1		

Data Package ID: *it1111160-1*

Total ICP Metals

Method SW6010B

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Field ID: BKGD-W-31-111107
Lab ID: 1111160-5

Sample Matrix: SOIL
 % Moisture: 8.4
 Date Collected: 07-Nov-11
 Date Extracted: 17-Nov-11
 Date Analyzed: 18-Nov-11
 Prep Method: SW3050 Rev B

Prep Batch: IP111117-1
 QCBatchID: IP111117-1-3
 Run ID: IT111118-2A1
 Cleanup: NONE
 Basis: Dry Weight
 File Name: 111118A.

Sample Aliquot: 1.004G
 Final Volume: 100ML
 Result Units: MG/KG
 Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	Reporting Limit	Result Qualifier	EPA Qualifier
7429-90-5	ALUMINUM	1	14000	22		
7440-36-0	ANTIMONY	1	2.2	2.2	U	
7440-38-2	ARSENIC	1	7.6	1.1		
7440-39-3	BARIUM	1	140	11		
7440-41-7	BERYLLIUM	1	1.1	0.54		
7440-43-9	CADMIUM	1	0.54	0.54	U	
7440-70-2	CALCIUM	1	18000	110		
7440-47-3	CHROMIUM	1	11	1.1		
7440-48-4	COBALT	1	8.2	1.1		
7440-50-8	COPPER	1	19	1.1		
7439-89-6	IRON	5	24000	54		
7439-92-1	LEAD	5	18	1.6		
7439-95-4	MAGNESIUM	1	5900	110		
7439-96-5	MANGANESE	1	250	1.1		
7439-98-7	MOLYBDENUM	1	1.1	1.1	U	
7440-02-0	NICKEL	1	15	2.2		
7440-09-7	POTASSIUM	1	4300	110		
7782-49-2	SELENIUM	5	2.7	2.7	U	
7440-22-4	SILVER	1	1.1	1.1	U	
7440-23-5	SODIUM	1	110	110	U	
7440-28-0	THALLIUM	5	5.4	5.4	U	
7440-31-5	TIN	1	5.4	5.4	U	
7440-62-2	VANADIUM	5	19	5.4		
7440-66-6	ZINC	1	65	2.2		

Data Package ID: *it1111160-1*

Total ICP Metals

Method SW6010B

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Field ID: S12-12-31-111107
Lab ID: 1111160-6

Sample Matrix: SOIL
% Moisture: 4.1
Date Collected: 07-Nov-11
Date Extracted: 17-Nov-11
Date Analyzed: 18-Nov-11
Prep Method: SW3050 Rev B

Prep Batch: IP111117-1
QCBatchID: IP111117-1-3
Run ID: IT111118-2A1
Cleanup: NONE
Basis: Dry Weight
File Name: 111118A.

Sample Allquot: 1.014G
Final Volume: 100ML
Result Units: MG/KG
Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	Reporting Limit	Result Qualifier	EPA Qualifier
7429-90-5	ALUMINUM	1	4800	21		
7440-36-0	ANTIMONY	1	2.1	2.1	U	
7440-38-2	ARSENIC	1	5.3	1		
7440-39-3	BARIUM	1	25	10		
7440-41-7	BERYLLIUM	1	0.51	0.51	U	
7440-43-9	CADMIUM	1	0.51	0.51	U	
7440-70-2	CALCIUM	1	7500	100		
7440-47-3	CHROMIUM	1	2.5	1		
7440-48-4	COBALT	1	2.2	1		
7440-50-8	COPPER	1	3.7	1		
7439-89-6	IRON	1	9800	10		
7439-92-1	LEAD	1	7.8	0.31		
7439-95-4	MAGNESIUM	1	1800	100		
7439-96-5	MANGANESE	1	130	1		
7439-98-7	MOLYBDENUM	1	1	1	U	
7440-02-0	NICKEL	1	3	2.1		
7440-09-7	POTASSIUM	1	790	100		
7782-49-2	SELENIUM	1	11	0.51		
7440-22-4	SILVER	1	1	1	U	
7440-23-5	SODIUM	1	100	100	U	
7440-28-0	THALLIUM	1	1	1	U	
7440-31-5	TIN	1	5.1	5.1	U	
7440-62-2	VANADIUM	1	26	1		
7440-66-6	ZINC	1	18	2.1		

Data Package ID: #1111160-1

Total ICP Metals

Method SW6010B

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Field ID: S12-14-31-111107

Lab ID: 1111160-7

Sample Matrix: SOIL

% Moisture: 3.9

Date Collected: 07-Nov-11

Date Extracted: 17-Nov-11

Date Analyzed: 18-Nov-11

Prep Method: SW3050 Rev B

Prep Batch: IP111117-1

QCBatchID: IP111117-1-3

Run ID: IT111118-2A1

Cleanup: NONE

Basis: Dry Weight

File Name: 111118A.

Sample Aliquot: 1.038G

Final Volume: 100ML

Result Units: MG/KG

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	Reporting Limit	Result Qualifier	EPA Qualifier
7429-90-5	ALUMINUM	1	8600	20		
7440-36-0	ANTIMONY	1	2	2	U	
7440-38-2	ARSENIC	1	5.4	1		
7440-39-3	BARIUM	1	56	10		
7440-41-7	BERYLLIUM	1	0.63	0.5		
7440-43-9	CADMIUM	1	0.5	0.5	U	
7440-70-2	CALCIUM	1	16000	100		
7440-47-3	CHROMIUM	1	5.7	1		
7440-48-4	COBALT	1	3.8	1		
7440-50-8	COPPER	1	8.4	1		
7439-89-6	IRON	1	15000	10		
7439-92-1	LEAD	1	16	0.3		
7439-95-4	MAGNESIUM	1	3000	100		
7439-96-5	MANGANESE	1	240	1		
7439-98-7	MOLYBDENUM	1	1	1	U	
7440-02-0	NICKEL	1	7.1	2		
7440-09-7	POTASSIUM	1	2800	100		
7782-49-2	SELENIUM	1	11	0.5		
7440-22-4	SILVER	1	1	1	U	
7440-23-5	SODIUM	1	100	100	U	
7440-28-0	THALLIUM	1	1	1	U	
7440-31-5	TIN	1	5	5	U	
7440-62-2	VANADIUM	1	33	1		
7440-66-6	ZINC	1	32	2		

Data Package ID: *it1111160-1*

Total ICP Metals

Method SW6010B

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Field ID: S12-22-31-111107
Lab ID: 1111160-8

Sample Matrix: SOIL
% Moisture: 4.6
Date Collected: 07-Nov-11
Date Extracted: 17-Nov-11
Date Analyzed: 18-Nov-11
Prep Method: SW3050 Rev B

Prep Batch: IP111117-1
QCBatchID: IP111117-1-3
Run ID: IT111118-2A1
Cleanup: NONE
Basis: Dry Weight
File Name: 111118A.

Sample Aliquot: 1.004 G
Final Volume: 100ML
Result Units: MG/KG
Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	Reporting Limit	Result Qualifier	EPA Qualifier
7429-90-5	ALUMINUM	1	9300	21		
7440-36-0	ANTIMONY	1	2.1	2.1	U	
7440-38-2	ARSENIC	1	6.8	1		
7440-39-3	BARIUM	1	62	10		
7440-41-7	BERYLLIUM	1	0.68	0.52		
7440-43-9	CADMIUM	1	0.52	0.52	U	
7440-70-2	CALCIUM	1	15000	100		
7440-47-3	CHROMIUM	1	6.4	1		
7440-48-4	COBALT	1	4.2	1		
7440-50-8	COPPER	1	9.2	1		
7439-89-6	IRON	1	17000	10		
7439-92-1	LEAD	1	16	0.31		
7439-95-4	MAGNESIUM	1	3300	100		
7439-96-5	MANGANESE	1	220	1		
7439-98-7	MOLYBDENUM	1	1	1	U	
7440-02-0	NICKEL	1	7.7	2.1		
7440-09-7	POTASSIUM	1	2700	100		
7782-49-2	SELENIUM	1	8.2	0.52		
7440-22-4	SILVER	1	1	1	U	
7440-23-5	SODIUM	1	100	100	U	
7440-28-0	THALLIUM	1	1	1	U	
7440-31-5	TIN	1	5.2	5.2	U	
7440-62-2	VANADIUM	1	31	1		
7440-66-6	ZINC	1	38	2.1		

Data Package ID: #1111160-1

Total ICP Metals

Method SW6010B

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Field ID: S12-33-31-111107
Lab ID: 1111160-9

Sample Matrix: SOIL
% Moisture: 3.6
Date Collected: 07-Nov-11
Date Extracted: 17-Nov-11
Date Analyzed: 18-Nov-11
Prep Method: SW3050 Rev B

Prep Batch: IP111117-1
QCBatchID: IP111117-1-3
Run ID: IT111118-2A1
Cleanup: NONE
Basis: Dry Weight
File Name: 111118A.

Sample Allquot: 1.03G
Final Volume: 100ML
Result Units: MG/KG
Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	Reporting Limit	Result Qualifier	EPA Qualifier
7429-90-5	ALUMINUM	1	2600	20		
7440-36-0	ANTIMONY	1	2	2	U	
7440-38-2	ARSENIC	1	4.6	1		
7440-39-3	BARIUM	1	12	10		
7440-41-7	BERYLLIUM	1	0.5	0.5	U	
7440-43-9	CADMIUM	1	0.5	0.5	U	
7440-70-2	CALCIUM	1	11000	100		
7440-47-3	CHROMIUM	1	1.1	1		
7440-48-4	COBALT	1	1.3	1		
7440-50-8	COPPER	1	1.9	1		
7439-89-6	IRON	1	7400	10		
7439-92-1	LEAD	1	11	0.3		
7439-95-4	MAGNESIUM	1	1200	100		
7439-96-5	MANGANESE	1	160	1		
7439-98-7	MOLYBDENUM	1	1	1	U	
7440-02-0	NICKEL	1	2	2	U	
7440-09-7	POTASSIUM	1	420	100		
7782-49-2	SELENIUM	1	8.9	0.5		
7440-22-4	SILVER	1	1	1	U	
7440-23-5	SODIUM	1	100	100	U	
7440-28-0	THALLIUM	1	1	1	U	
7440-31-5	TIN	1	5	5	U	
7440-62-2	VANADIUM	1	56	1		
7440-66-6	ZINC	1	10	2		

Data Package ID: *it1111160-1*

Total ICP Metals

Method SW6010B

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Field ID: S12-34-31-111107

Lab ID: 1111160-10

Sample Matrix: SOIL

% Moisture: 3.2

Date Collected: 07-Nov-11

Date Extracted: 17-Nov-11

Date Analyzed: 18-Nov-11

Prep Method: SW3050 Rev B

Prep Batch: IP111117-1

QCBatchID: IP111117-1-3

Run ID: IT111118-2A1

Cleanup: NONE

Basis: Dry Weight

File Name: 111118A.

Sample Aliquot: 1.036G

Final Volume: 100ML

Result Units: MG/KG

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	Reporting Limit	Result Qualifier	EPA Qualifier
7429-90-5	ALUMINUM	1	3100	20		
7440-36-0	ANTIMONY	1	2	2	U	
7440-38-2	ARSENIC	1	4.5	1		
7440-39-3	BARIUM	1	13	10		
7440-41-7	BERYLLIUM	1	0.5	0.5	U	
7440-43-9	CADMIUM	1	0.5	0.5	U	
7440-70-2	CALCIUM	1	7100	100		
7440-47-3	CHROMIUM	1	1.4	1		
7440-48-4	COBALT	1	1.4	1		
7440-50-8	COPPER	1	4.1	1		
7439-89-6	IRON	1	8000	10		
7439-92-1	LEAD	1	21	0.3		
7439-95-4	MAGNESIUM	1	1200	100		
7439-96-5	MANGANESE	1	130	1		
7439-98-7	MOLYBDENUM	1	1.2	1		
7440-02-0	NICKEL	1	2	2	U	
7440-09-7	POTASSIUM	1	490	100		
7782-49-2	SELENIUM	1	8.7	0.5		
7440-22-4	SILVER	1	1	1	U	
7440-23-5	SODIUM	1	100	100	U	
7440-28-0	THALLIUM	1	1	1	U	
7440-31-5	TIN	1	5	5	U	
7440-62-2	VANADIUM	1	57	1		
7440-66-6	ZINC	1	46	2		

Data Package ID: #1111160-1

Total ICP Metals

Method SW6010B

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Field ID: S12-34-32-111107	Sample Matrix: SOIL	Prep Batch: IP111117-1	Sample Aliquot: 1.024 G
Lab ID: 1111160-11	% Moisture: 3.4	QCBatchID: IP111117-1-3	Final Volume: 100ML
	Date Collected: 07-Nov-11	Run ID: IT111118-2A1	Result Units: MG/KG
	Date Extracted: 17-Nov-11	Cleanup: NONE	Clean DF: 1
	Date Analyzed: 18-Nov-11	Basis: Dry Weight	
	Prep Method: SW3050 Rev B	File Name: 111118A.	

CASNO	Target Analyte	Dilution Factor	Result	Reporting Limit	Result Qualifier	EPA Qualifier
7429-90-5	ALUMINUM	1	2900	20		
7440-36-0	ANTIMONY	1	2	2	U	
7440-38-2	ARSENIC	1	3.7	1		
7440-39-3	BARIUM	1	12	10		
7440-41-7	BERYLLIUM	1	0.51	0.51	U	
7440-43-9	CADMIUM	1	0.51	0.51	U	
7440-70-2	CALCIUM	1	7500	100		
7440-47-3	CHROMIUM	1	1.3	1		
7440-48-4	COBALT	1	1.3	1		
7440-50-8	COPPER	1	2.6	1		
7439-89-6	IRON	1	7800	10		
7439-92-1	LEAD	1	15	0.3		
7439-95-4	MAGNESIUM	1	1100	100		
7439-96-5	MANGANESE	1	130	1		
7439-98-7	MOLYBDENUM	1	1	1	U	
7440-02-0	NICKEL	1	2	2	U	
7440-09-7	POTASSIUM	1	470	100		
7782-49-2	SELENIUM	1	8.5	0.51		
7440-22-4	SILVER	1	1	1	U	
7440-23-5	SODIUM	1	100	100	U	
7440-28-0	THALLIUM	1	1	1	U	
7440-31-5	TIN	1	5.1	5.1	U	
7440-62-2	VANADIUM	1	55	1		
7440-66-6	ZINC	1	16	2		

Data Package ID: *it1111160-1*

Total ICP Metals

Method SW6010B

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Field ID: S12-35-31-111107

Lab ID: 1111160-12

Sample Matrix: SOIL

% Moisture: 2.1

Date Collected: 07-Nov-11

Date Extracted: 17-Nov-11

Date Analyzed: 18-Nov-11

Prep Method: SW3050 Rev B

Prep Batch: IP111117-1

QCBatchID: IP111117-1-3

Run ID: IT111118-2A1

Cleanup: NONE

Basis: Dry Weight

File Name: 111118A.

Sample Aliquot: 1.019 G

Final Volume: 100 ML

Result Units: MG/KG

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	Reporting Limit	Result Qualifier	EPA Qualifier
7429-90-5	ALUMINUM	1	3400	20		
7440-36-0	ANTIMONY	1	2	2	U	
7440-38-2	ARSENIC	1	5.5	1		
7440-39-3	BARIUM	1	22	10		
7440-41-7	BERYLLIUM	1	0.57	0.5		
7440-43-9	CADMIUM	1	0.5	0.5	U	
7440-70-2	CALCIUM	1	14000	100		
7440-47-3	CHROMIUM	1	1.8	1		
7440-48-4	COBALT	1	1.7	1		
7440-50-8	COPPER	1	2.4	1		
7439-89-6	IRON	1	9200	10		
7439-92-1	LEAD	1	17	0.3		
7439-95-4	MAGNESIUM	1	1500	100		
7439-96-5	MANGANESE	1	210	1		
7439-98-7	MOLYBDENUM	1	1.5	1		
7440-02-0	NICKEL	1	2	2	U	
7440-09-7	POTASSIUM	1	530	100		
7782-49-2	SELENIUM	1	8	0.5		
7440-22-4	SILVER	1	1	1	U	
7440-23-5	SODIUM	1	100	100	U	
7440-28-0	THALLIUM	1	1	1	U	
7440-31-5	TIN	1	5	5	U	
7440-62-2	VANADIUM	1	88	1		
7440-66-6	ZINC	1	13	2		

Data Package ID: *it1111160-1*

Total ICP Metals

Method SW6010B

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Field ID: S12-52-31-111107

Lab ID: 1111160-13

Sample Matrix: SOIL

% Moisture: 6.4

Date Collected: 07-Nov-11

Date Extracted: 17-Nov-11

Date Analyzed: 18-Nov-11

Prep Method: SW3050 Rev B

Prep Batch: IP111117-1

QCBatchID: IP111117-1-3

Run ID: IT111118-2A1

Cleanup: NONE

Basis: Dry Weight

File Name: 111118A.

Sample Aliquot: 1.026G

Final Volume: 100ML

Result Units: MG/KG

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	Reporting Limit	Result Qualifier	EPA Qualifier
7429-90-5	ALUMINUM	1	4700	21		
7440-36-0	ANTIMONY	1	2.1	2.1	U	
7440-38-2	ARSENIC	1	5.2	1		
7440-39-3	BARIUM	1	19	10		
7440-41-7	BERYLLIUM	1	0.52	0.52	U	
7440-43-9	CADMIUM	1	0.52	0.52	U	
7440-70-2	CALCIUM	1	8600	100		
7440-47-3	CHROMIUM	1	1.8	1		
7440-48-4	COBALT	1	1.9	1		
7440-50-8	COPPER	1	2.8	1		
7439-89-6	IRON	1	10000	10		
7439-92-1	LEAD	1	11	0.31		
7439-95-4	MAGNESIUM	1	1900	100		
7439-96-5	MANGANESE	1	120	1		
7439-98-7	MOLYBDENUM	1	1	1	U	
7440-02-0	NICKEL	1	2.1	2.1	U	
7440-09-7	POTASSIUM	1	580	100		
7782-49-2	SELENIUM	1	8.2	0.52		
7440-22-4	SILVER	1	1	1	U	
7440-23-5	SODIUM	1	100	100	U	
7440-28-0	THALLIUM	1	1	1	U	
7440-31-5	TIN	1	5.2	5.2	U	
7440-62-2	VANADIUM	1	22	1		
7440-66-6	ZINC	1	16	2.1		

Data Package ID: #1111160-1

Total ICP Metals

Method SW6010B

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Field ID: S12-56-31-111107

Lab ID: 1111160-14

Sample Matrix: SOIL

% Moisture: 4.0

Date Collected: 07-Nov-11

Date Extracted: 17-Nov-11

Date Analyzed: 18-Nov-11

Prep Method: SW3050 Rev B

Prep Batch: IP111117-1

QCBatchID: IP111117-1-3

Run ID: IT111118-2A1

Cleanup: NONE

Basis: Dry Weight

File Name: 111118A.

Sample Aliquot: 1.007 G

Final Volume: 100ML

Result Units: MG/KG

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	Reporting Limit	Result Qualifier	EPA Qualifier
7429-90-5	ALUMINUM	1	7200	21		
7440-36-0	ANTIMONY	1	2.1	2.1	U	
7440-38-2	ARSENIC	1	13	1		
7440-39-3	BARIUM	1	46	10		
7440-41-7	BERYLLIUM	1	0.57	0.52		
7440-43-9	CADMIUM	1	4.9	0.52		
7440-70-2	CALCIUM	1	14000	100		
7440-47-3	CHROMIUM	1	4.7	1		
7440-48-4	COBALT	1	4.3	1		
7440-50-8	COPPER	1	64	1		
7439-89-6	IRON	1	17000	10		
7439-92-1	LEAD	1	490	0.31		
7439-95-4	MAGNESIUM	1	2900	100		
7439-96-5	MANGANESE	1	300	1		
7439-98-7	MOLYBDENUM	1	1	1	U	
7440-02-0	NICKEL	1	6.9	2.1		
7440-09-7	POTASSIUM	1	2200	100		
7782-49-2	SELENIUM	1	7.3	0.52		
7440-22-4	SILVER	1	1	1	U	
7440-23-5	SODIUM	1	100	100	U	
7440-28-0	THALLIUM	1	1	1	U	
7440-31-5	TIN	1	5.2	5.2	U	
7440-62-2	VANADIUM	1	35	1		
7440-66-6	ZINC	1	780	2.1		

Data Package ID: #1111160-1

Total ICP Metals

Method SW6010B

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Field ID: S12-64-31-111107
Lab ID: 1111160-15

Sample Matrix: SOIL
% Moisture: 9.1
Date Collected: 07-Nov-11
Date Extracted: 17-Nov-11
Date Analyzed: 18-Nov-11
Prep Method: SW3050 Rev B

Prep Batch: IP111117-1
QCBatchID: IP111117-1-3
Run ID: IT111118-2A1
Cleanup: NONE
Basis: Dry Weight
File Name: 111118A.

Sample Aliquot: 1.009G
Final Volume: 100ML
Result Units: MG/KG
Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	Reporting Limit	Result Qualifier	EPA Qualifier
7429-90-5	ALUMINUM	1	16000	22		
7440-36-0	ANTIMONY	1	2.2	2.2	U	
7440-38-2	ARSENIC	1	6.1	1.1		
7440-39-3	BARIUM	1	110	11		
7440-41-7	BERYLLIUM	1	0.97	0.54		
7440-43-9	CADMIUM	1	0.54	0.54	U	
7440-70-2	CALCIUM	1	16000	110		
7440-47-3	CHROMIUM	1	11	1.1		
7440-48-4	COBALT	1	7.1	1.1		
7440-50-8	COPPER	1	19	1.1		
7439-89-6	IRON	1	22000	11		
7439-92-1	LEAD	1	29	0.33		
7439-95-4	MAGNESIUM	1	5300	110		
7439-96-5	MANGANESE	1	270	1.1		
7439-98-7	MOLYBDENUM	1	1.1	1.1	U	
7440-02-0	NICKEL	1	14	2.2		
7440-09-7	POTASSIUM	1	4800	110		
7782-49-2	SELENIUM	1	1.2	0.54		
7440-22-4	SILVER	1	1.1	1.1	U	
7440-23-5	SODIUM	1	110	110	U	
7440-28-0	THALLIUM	1	1.1	1.1	U	
7440-31-5	TIN	1	5.4	5.4	U	
7440-62-2	VANADIUM	1	23	1.1		
7440-66-6	ZINC	1	68	2.2		

Data Package ID: #1111160-1

Total URANIUM

Method SW6020A

Sample Results

Lab Name: ALS Environmental -- FC

Client Name: Weston Solutions, Inc.

Client Project ID: Section 12 Uranium Mine T00035110902-111110-0001

Work Order Number: 1111160

Final Volume: 100 ml

Reporting Basis: Dry Weight

Matrix: SOIL

Prep Method: SW3050B

Result Units: UG/KG

Client Sample ID	Lab ID	Date Collected	Date Prepared	Date Analyzed	Percent Moisture	Dilution Factor	Result	Reporting Limit	Flag	Sample Aliquot
BKGD-E-31-111107	1111160-2	11/07/2011	11/17/2011	11/18/2011	6.5	10	29000	10		1.02 g
BKGD-N-31-111107	1111160-3	11/07/2011	11/17/2011	11/18/2011	6.6	10	3000	10		1.028 g
BKGD-S-31-111107	1111160-4	11/07/2011	11/17/2011	11/21/2011	6.9	10	2400	11		1.018 g
BKGD-W-31-111107	1111160-5	11/07/2011	11/17/2011	11/21/2011	8.4	10	1900	11		1.004 g
S12-12-31-111107	1111160-6	11/07/2011	11/17/2011	11/21/2011	4.1	100	45000	100		1.014 g
S12-14-31-111107	1111160-7	11/07/2011	11/17/2011	11/21/2011	3.9	100	110000	100		1.038 g
S12-22-31-111107	1111160-8	11/07/2011	11/17/2011	11/21/2011	4.6	100	94000	100		1.004 g
S12-33-31-111107	1111160-9	11/07/2011	11/17/2011	11/21/2011	3.6	200	340000	200		1.03 g
S12-34-31-111107	1111160-10	11/07/2011	11/17/2011	11/21/2011	3.2	200	290000	200		1.036 g
S12-34-32-111107	1111160-11	11/07/2011	11/17/2011	11/21/2011	3.4	200	280000	200		1.024 g
S12-35-31-111107	1111160-12	11/07/2011	11/17/2011	11/21/2011	2.1	1000	700000	1000		1.019 g
S12-52-31-111107	1111160-13	11/07/2011	11/17/2011	11/21/2011	6.4	100	160000	100		1.026 g
S12-56-31-111107	1111160-14	11/07/2011	11/17/2011	11/21/2011	4.0	100	85000	100		1.007 g
S12-64-31-111107	1111160-15	11/07/2011	11/17/2011	11/21/2011	9.1	100	19000	110		1.009 g

Comments:

1. ND or U = Not Detected at or above the client requested detection limit.

Data Package ID: *im1111160-1*

Total Recoverable URANIUM

Method SW6020A

Sample Results

Lab Name: ALS Environmental -- FC

Client Name: Weston Solutions, Inc.

Client Project ID: Section 12 Uranium Mine TO0035110902-111110-0001

Work Order Number: 1111160

Final Volume: 50 g

Reporting Basis: As Received

Matrix: WATER

Prep Method: SW3005A

Result Units: UG/L

Client Sample ID	Lab ID	Date Collected	Date Prepared	Date Analyzed	Percent Moisture	Dilution Factor	Result	Reporting Limit	Flag	Sample Aliquot
ALSW-01-111107	1111160-1	11/07/2011	11/16/2011	11/18/2011	N/A	10	51	0.1		50 g

Comments:

-
1. ND or U = Not Detected at or above the client requested detection limit.

Data Package ID: *im1111160-1*

Total MERCURY

Method SW7471A

Sample Results

Lab Name: ALS Environmental -- FC

Client Name: Weston Solutions, Inc.

Client Project ID: Section 12 Uranium Mine TO0035110902-111110-0001

Work Order Number: 1111160

Final Volume: 100 g

Reporting Basis: Dry Weight

Matrix: SOIL

Prep Method: METHOD

Result Units: MG/KG

Client Sample ID	Lab ID	Date Collected	Date Prepared	Date Analyzed	Percent Moisture	Dilution Factor	Result	Reporting Limit	Flag	Sample Aliquot
BKGD-E-31-111107	1111160-2	11/07/2011	11/18/2011	11/22/2011	6.5	1	0.035	0.035	U	0.609 g
BKGD-N-31-111107	1111160-3	11/07/2011	11/18/2011	11/22/2011	6.6	1	0.035	0.035	U	0.612 g
BKGD-S-31-111107	1111160-4	11/07/2011	11/18/2011	11/22/2011	6.9	1	0.036	0.036	U	0.605 g
BKGD-W-31-111107	1111160-5	11/07/2011	11/18/2011	11/22/2011	8.4	1	0.036	0.036	U	0.613 g
S12-12-31-111107	1111160-6	11/07/2011	11/18/2011	11/22/2011	4.1	1	0.035	0.034		0.614 g
S12-14-31-111107	1111160-7	11/07/2011	11/18/2011	11/22/2011	3.9	1	0.077	0.034		0.61 g
S12-22-31-111107	1111160-8	11/07/2011	11/18/2011	11/22/2011	4.6	1	0.078	0.034		0.61 g
S12-33-31-111107	1111160-9	11/07/2011	11/18/2011	11/22/2011	3.6	1	0.072	0.034		0.611 g
S12-34-31-111107	1111160-10	11/07/2011	11/18/2011	11/22/2011	3.2	1	0.091	0.034		0.606 g
S12-34-32-111107	1111160-11	11/07/2011	11/18/2011	11/22/2011	3.4	1	0.097	0.034		0.602 g
S12-35-31-111107	1111160-12	11/07/2011	11/18/2011	11/22/2011	2.1	1	0.077	0.033		0.615 g
S12-52-31-111107	1111160-13	11/07/2011	11/18/2011	11/22/2011	6.4	1	0.054	0.035		0.611 g
S12-56-31-111107	1111160-14	11/07/2011	11/18/2011	11/22/2011	4.0	1	0.15	0.034		0.614 g
S12-64-31-111107	1111160-15	11/07/2011	11/18/2011	11/22/2011	9.1	1	0.036	0.036	U	0.603 g

Comments:

1. ND or U = Not Detected at or above the client requested detection limit.

Data Package ID: *hg1111160-1*

Total MERCURY

Method SW7470A

Sample Results

Lab Name: ALS Environmental -- FC

Client Name: Weston Solutions, Inc.

Client Project ID: Section 12 Uranium Mine TO0035110902-111110-0001

Work Order Number: 1111160

Final Volume: 20 g

Reporting Basis: As Received

Matrix: WATER

Prep Method: METHOD

Result Units: MG/L

Client Sample ID	Lab ID	Date Collected	Date Prepared	Date Analyzed	Percent Moisture	Dilution Factor	Result	Reporting Limit	Flag	Sample Aliquot
ALSW-01-111107	1111160-1	11/07/2011	11/15/2011	11/17/2011	N/A	1	0.0002	0.0002	U	20 g

Comments:

1. ND or U = Not Detected at or above the client requested detection limit.

Data Package ID: *hg1111160-1*



Summary Report Forms

ICP Metals

Method SW6010B

Method Blank

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Lab ID: IP111116-4MB

Sample Matrix: WATER
% Moisture: N/A
Date Collected: N/A
Date Analyzed: 17-Nov-11
Prep Method: SW3005 Rev A

Prep Batch: IP111116-4
QCBatchID: IP111116-4-5
Run ID: IT111117-2A1
Cleanup: NONE
Basis: N/A
File Name: 111117A.

Sample Aliquot: 50g
Final Volume: 50g
Result Units: MG/L
Clean DF: 1

CASNO	Target Analyte	DF	Result	Reporting Limit	Result Qualifier	EPA Qualifier
7429-90-5	ALUMINIUM	1	0.2	0.2	U	
7440-36-0	ANTIMONY	1	0.02	0.02	U	
7440-38-2	ARSENIC	1	0.01	0.01	U	
7440-39-3	BARIUM	1	0.1	0.1	U	
7440-41-7	BERYLLIUM	1	0.005	0.005	U	
7440-43-9	CADMIUM	1	0.005	0.005	U	
7440-70-2	CALCIUM	1	1	1	U	
7440-47-3	CHROMIUM	1	0.01	0.01	U	
7440-48-4	COBALT	1	0.01	0.01	U	
7440-50-8	COPPER	1	0.01	0.01	U	
7439-89-6	IRON	1	0.1	0.1	U	
7439-92-1	LEAD	1	0.003	0.003	U	
7439-95-4	MAGNESIUM	1	1	1	U	
7439-96-5	MANGANESE	1	0.01	0.01	U	
7439-98-7	MOLYBDENUM	1	0.01	0.01	U	
7440-02-0	NICKEL	1	0.02	0.02	U	
7440-09-7	POTASSIUM	1	1	1	U	
7782-49-2	SELENIUM	1	0.005	0.005	U	
7440-22-4	SILVER	1	0.01	0.01	U	
7440-23-5	SODIUM	1	1	1	U	
7440-28-0	THALLIUM	1	0.01	0.01	U	
7440-31-5	TIN	1	0.05	0.05	U	
7440-62-2	VANADIUM	1	0.01	0.01	U	
7440-66-6	ZINC	1	0.02	0.02	U	

Data Package ID: *it1111160-1*

ICP Metals

Method SW6010B

Method Blank

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Lab ID: IP111117-1MB

Sample Matrix: SOIL
 % Moisture: N/A
 Date Collected: N/A
 Date Extracted: 17-Nov-11
 Date Analyzed: 18-Nov-11
 Prep Method: SW3050 Rev B

Prep Batch: IP111117-1
 QCBatchID: IP111117-1-3
 Run ID: IT111118-2A1
 Cleanup: NONE
 Basis: N/A
 File Name: 111118A.

Sample Aliquot: 1g
 Final Volume: 100 ml
 Result Units: MG/KG
 Clean DF: 1

CASNO	Target Analyte	DF	Result	Reporting Limit	Result Qualifier	EPA Qualifier
7429-90-5	ALUMINUM	1	20	20	U	
7440-36-0	ANTIMONY	1	2	2	U	
7440-38-2	ARSENIC	1	1	1	U	
7440-39-3	BARIUM	1	10	10	U	
7440-41-7	BERYLLIUM	1	0.5	0.5	U	
7440-43-9	CADMIUM	1	0.5	0.5	U	
7440-70-2	CALCIUM	1	100	100	U	
7440-47-3	CHROMIUM	1	1	1	U	
7440-48-4	COBALT	1	1	1	U	
7440-50-8	COPPER	1	1	1	U	
7439-89-6	IRON	1	10	10	U	
7439-92-1	LEAD	1	0.3	0.3	U	
7439-95-4	MAGNESIUM	1	100	100	U	
7439-96-5	MANGANESE	1	1	1	U	
7439-98-7	MOLYBDENUM	1	1	1	U	
7440-02-0	NICKEL	1	2	2	U	
7440-09-7	POTASSIUM	1	100	100	U	
7782-49-2	SELENIUM	1	0.5	0.5	U	
7440-22-4	SILVER	1	1	1	U	
7440-23-5	SODIUM	1	100	100	U	
7440-28-0	THALLIUM	1	1	1	U	
7440-31-5	TIN	1	5	5	U	
7440-62-2	VANADIUM	1	1	1	U	
7440-66-6	ZINC	1	2	2	U	

Data Package ID: #1111160-1

ICP Metals

Method SW6010B

Laboratory Control Sample

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Lab ID: IP111116-4LCS	Sample Matrix: WATER % Moisture: N/A Date Collected: N/A Date Extracted: 11/16/2011 Date Analyzed: 11/17/2011 Prep Method: SW3005A	Prep Batch: IP111116-4 QCBatchID: IP111116-4-5 Run ID: IT111117-2A1 Cleanup: NONE Basis: N/A File Name: 111117A.	Sample Aliquot: 50g Final Volume: 50g Result Units: MG/L Clean DF: 1
------------------------------	--	--	---

CASNO	Target Analyte	Spike Added	LCS Result	Reporting Limit	Result Qualifier	LCS % Rec.	Control Limits
7429-90-5	ALUMINUM	2	2.03	0.2		102	80 - 120%
7440-36-0	ANTIMONY	0.5	0.448	0.02		90	80 - 120%
7440-38-2	ARSENIC	2	1.93	0.01		96	80 - 120%
7440-39-3	BARIUM	2	1.92	0.1		96	80 - 120%
7440-41-7	BERYLLIUM	0.05	0.0484	0.005		97	80 - 120%
7440-43-9	CADMIUM	0.05	0.0508	0.005		102	80 - 120%
7440-70-2	CALCIUM	40	37.9	1		95	80 - 120%
7440-47-3	CHROMIUM	0.2	0.193	0.01		96	80 - 120%
7440-48-4	COBALT	0.5	0.481	0.01		96	80 - 120%
7440-50-8	COPPER	0.25	0.24	0.01		96	80 - 120%
7439-89-6	IRON	1	0.971	0.1		97	80 - 120%
7439-92-1	LEAD	0.5	0.479	0.003		96	80 - 120%
7439-95-4	MAGNESIUM	40	37.5	1		94	80 - 120%
7439-96-5	MANGANESE	0.5	0.477	0.01		95	80 - 120%
7439-98-7	MOLYBDENUM	1	0.966	0.01		97	80 - 120%
7440-02-0	NICKEL	0.5	0.468	0.02		94	80 - 120%
7440-09-7	POTASSIUM	40	37.4	1		93	80 - 120%
7782-49-2	SELENIUM	2	2.03	0.005		102	80 - 120%
7440-22-4	SILVER	0.1	0.0966	0.01		97	80 - 120%
7440-23-5	SODIUM	40	36.4	1		91	80 - 120%
7440-28-0	THALLIUM	2	1.93	0.01		96	80 - 120%
7440-31-5	TIN	0.5	0.482	0.05		96	80 - 120%
7440-62-2	VANADIUM	0.5	0.488	0.01		98	80 - 120%
7440-66-6	ZINC	0.5	0.467	0.02		93	80 - 120%

Data Package ID: *it1111160-1*

ICP Metals

Method SW6010

Laboratory Control Sample

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Lab ID: IP111117-1LCS

Sample Matrix: SOIL
 % Moisture: N/A
 Date Collected: N/A
 Date Extracted: 11/17/2011
 Date Analyzed: 11/18/2011
 Prep Method: SW3050B

Prep Batch: IP111117-1
 QCBatchID: IP111117-1-3
 Run ID: IT111118-2A1
 Cleanup: NONE
 Basis: N/A
 File Name: 111118A.

Sample Aliquot: 1g
 Final Volume: 100ml
 Result Units: MG/KG
 Clean DF: 1

CASNO	Target Analyte	Spike Added	LCS Result	Reporting Limit	Result Qualifier	LCS % Rec.	Control Limits
7429-90-5	ALUMINUM	200	221	20		110	80 - 120%
7440-36-0	ANTIMONY	50	48.6	2		97	80 - 120%
7440-38-2	ARSENIC	200	198	1		99	80 - 120%
7440-39-3	BARIUM	200	207	10		104	80 - 120%
7440-41-7	BERYLLIUM	5	4.9	0.5		98	80 - 120%
7440-43-9	CADMIUM	5	4.65	0.5		93	80 - 120%
7440-70-2	CALCIUM	4000	3630	100		91	80 - 120%
7440-47-3	CHROMIUM	20	19	1		95	80 - 120%
7440-48-4	COBALT	50	47.6	1		95	80 - 120%
7440-50-8	COPPER	25	25.8	1		103	80 - 120%
7439-89-6	IRON	100	101	10		101	80 - 120%
7439-92-1	LEAD	50	48.6	0.3		97	80 - 120%
7439-95-4	MAGNESIUM	4000	3730	100		93	80 - 120%
7439-96-5	MANGANESE	50	48.4	1		97	80 - 120%
7439-98-7	MOLYBDENUM	100	97.9	1		98	80 - 120%
7440-02-0	NICKEL	50	49.9	2		100	80 - 120%
7440-09-7	POTASSIUM	4000	3670	100		92	80 - 120%
7782-49-2	SELENIUM	200	193	0.5		96	80 - 120%
7440-22-4	SILVER	10	8.75	1		87	80 - 120%
7440-23-5	SODIUM	4000	3690	100		92	80 - 120%
7440-28-0	THALLIUM	200	210	1		105	80 - 120%
7440-31-5	TIN	50	52.5	5		105	80 - 120%
7440-62-2	VANADIUM	50	48.7	1		97	80 - 120%
7440-66-6	ZINC	50	46	2		92	80 - 120%

Data Package ID: *it1111160-1*

ICP Metals

Method SW6010B

Matrix Spike And Matrix Spike Duplicate

Lab Name: ALS Environmental -- FC
Work Order Number: 1111160
Client Name: Weston Solutions, Inc.
ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Field ID: BKGD-E-31-111107
LabID: 1111160-2MS

Sample Matrix: SOIL
% Moisture: 6.5
Date Collected: 07-Nov-11
Date Extracted: 17-Nov-11
Date Analyzed: 18-Nov-11
Prep Method: SW3050 Rev B

Prep Batch: IP111117-1
QCBatchID: IP111117-1-3
Run ID: IT111118-2A1
Cleanup: NONE
Basis: Dry Weight

Sample Aliquot: 1.002 g
Final Volume: 100 ml
Result Units: MG/KG
File Name: 111118A.

CASNO	Target Analyte	Sample Result	Samp Qual	MS Result	MS Qual	Reporting Limit	Spike Added	MS % Rec.	Control Limits
7429-90-5	ALUMINUM	12000		18200		21.4	214	2783	80 - 120%
7440-36-0	ANTIMONY	2.1	U	17.2	N	2.14	53.4	32	80 - 120%
7440-38-2	ARSENIC	5.9		204		1.07	214	93	80 - 120%
7440-39-3	BARIUM	270		321	N	10.7	214	23	80 - 120%
7440-41-7	BERYLLIUM	0.78		5.73		0.534	5.34	93	80 - 120%
7440-43-9	CADMIUM	0.52	U	4.97		0.534	5.34	93	80 - 120%
7440-70-2	CALCIUM	20000		24500		107	4270	95	80 - 120%
7440-47-3	CHROMIUM	9		30.3		1.07	21.4	100	80 - 120%
7440-48-4	COBALT	5.6		52.8		1.07	53.4	89	80 - 120%
7440-50-8	COPPER	13		39.9		1.07	26.7	102	80 - 120%
7439-89-6	IRON	19000		20100		10.7	107	626	80 - 120%
7439-92-1	LEAD	15		63.8		0.32	53.4	92	80 - 120%
7439-95-4	MAGNESIUM	4400		8870		107	4270	104	80 - 120%
7439-96-5	MANGANESE	220		254		1.07	53.4	73	80 - 120%
7439-98-7	MOLYBDENUM	1	U	84.9		1.07	107	80	80 - 120%
7440-02-0	NICKEL	12		60.8		2.14	53.4	92	80 - 120%
7440-09-7	POTASSIUM	4900		9800		107	4270	116	80 - 120%
7782-49-2	SELENIUM	2.1		202		0.534	214	94	80 - 120%
7440-22-4	SILVER	1	U	8.85		1.07	10.7	83	80 - 120%
7440-23-5	SODIUM	900		4660		107	4270	88	80 - 120%
7440-28-0	THALLIUM	1.1		208		1.07	214	97	80 - 120%
7440-31-5	TIN	5.2	U	53.2		5.34	53.4	100	80 - 120%
7440-62-2	VANADIUM	22		76.6		1.07	53.4	102	80 - 120%
7440-66-6	ZINC	140		115	N	2.14	53.4	-45	80 - 120%

Data Package ID: it1111160-1

ICP Metals

Method SW6010B

Matrix Spike And Matrix Spike Duplicate

Lab Name: ALS Environmental -- FC
Work Order Number: 1111160
Client Name: Weston Solutions, Inc.
ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Field ID: BKGD-E-31-111107
LabID: 1111160-2MSD

Sample Matrix: SOIL
% Moisture: 6.5
Date Collected: 07-Nov-11
Date Extracted: 17-Nov-11
Date Analyzed: 18-Nov-11
Prep Method: SW3050 Rev B

Prep Batch: IP111117-1
QCBatchID: IP111117-1-3
Run ID: IT111118-2A1
Cleanup: NONE
Basis: Dry Weight

Sample Aliquot: 1.006 g
Final Volume: 100 ml
Result Units: MG/KG
File Name: 111118A.

CASNO	Target Analyte	MSD Result	MSD Qual	Spike Added	MSD % Rec.	Reporting Limit	RPD Limit	RPD
7429-90-5	ALUMINUM	18700		213	3064	21.3	20	3
7440-36-0	ANTIMONY	17.9	N	53.2	34	2.13	20	4
7440-38-2	ARSENIC	212		213	97	1.06	20	4
7440-39-3	BARIUM	326	N	213	26	10.6	20	2
7440-41-7	BERYLLIUM	5.92		5.32	97	0.532	20	3
7440-43-9	CADMIUM	5.07		5.32	95	0.532	20	2
7440-70-2	CALCIUM	24200		4250	88	106	20	1
7440-47-3	CHROMIUM	31.3		21.3	105	1.06	20	3
7440-48-4	COBALT	54.8		53.2	93	1.06	20	4
7440-50-8	COPPER	41.4		26.6	108	1.06	20	4
7439-89-6	IRON	20100		106	650	10.6	20	0
7439-92-1	LEAD	65.5		53.2	95	0.319	20	3
7439-95-4	MAGNESIUM	9080		4250	110	106	20	2
7439-96-5	MANGANESE	258		53.2	81	1.06	20	2
7439-98-7	MOLYBDENUM	87.9		106	83	1.06	20	3
7440-02-0	NICKEL	63.1		53.2	97	2.13	20	4
7440-09-7	POTASSIUM	10200	N	4250	124	106	20	4
7782-49-2	SELENIUM	209		213	98	0.532	20	3
7440-22-4	SILVER	9.34		10.6	88	1.06	20	5
7440-23-5	SODIUM	4850		4250	93	106	20	4
7440-28-0	THALLIUM	219		213	102	1.06	20	5
7440-31-5	TIN	55.4		53.2	104	5.32	20	4
7440-62-2	VANADIUM	78.5		53.2	106	1.06	20	2
7440-66-6	ZINC	109	N	53.2	-58	2.13	20	6

Data Package ID: *it1111160-1*

ICP Metals

Method SW6010

Analytical Spike Sample Recovery

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Field ID: BKGD-E-31-111107

LabID: 1111160-2A

Run ID: IT111118-2A1

Date Analyzed: 18-Nov-11

Result Units: mg/l

Target Analyte	Sample Result	Samp Qual	PS Result	PS Qual	Spike Added	PS % Rec.	Control Limits
ANTIMONY	0.0200	U	0.499		0.5	100	75 - 125%
BARIUM	2.59		2.82	N	2	12	75 - 125%
POTASSIUM	46.4		81.7		40	88	75 - 125%
ZINC	1.33		0.867	N	0.5	-92	75 - 125%

Data Package ID: *it1111160-1*

ICP Metals

Method SW6010

Duplicate Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Field ID: BKGD-E-31-111107
Lab ID: 1111160-2D

Sample Matrix: SOIL
% Moisture: 6.5
Date Collected: 11/07/2011
Date Extracted: 11/17/2011
Date Analyzed: 11/18/2011

Prep Batch: IP111117-1
QCBatchID: IP111117-1-3
Run ID: IT111118-2A1
Cleanup: NONE
Basis: Dry Weight
File Name: 111118A.

Sample Aliquot: 1.016 g
Final Volume: 100 ml
Result Units: MG/KG
Clean DF: 1

CASNO	Target Analyte	Sample Result	Samp Qual	Duplicate Result	Dup Qual	Reporting Limit	Dilution Factor	RPD	RPD Limit
7429-90-5	ALUMINUM	12000		12200		21.1	1	1	20
7440-36-0	ANTIMONY	2.1	U	2.11	U	2.11	1		20
7440-38-2	ARSENIC	5.9		6.12		1.05	1	5	20
7440-39-3	BARIUM	270		126	*	10.5	1	73	20
7440-41-7	BERYLLIUM	0.78		0.78		0.526	1		20
7440-43-9	CADMIUM	0.52	U	0.526	U	0.526	1		20
7440-70-2	CALCIUM	20000		19700		105	1	4	20
7440-47-3	CHROMIUM	9		8.88		1.05	1	2	20
7440-48-4	COBALT	5.6		5.57		1.05	1	0	20
7440-50-8	COPPER	13		12.4		1.05	1	1	20
7439-89-6	IRON	19000		18200		10.5	1	6	20
7439-92-1	LEAD	15		14.2		0.316	1	5	20
7439-95-4	MAGNESIUM	4400		4370		105	1	1	20
7439-96-5	MANGANESE	220		201		1.05	1	7	20
7439-98-7	MOLYBDENUM	1	U	1.05	U	1.05	1		20
7440-02-0	NICKEL	12		11.3		2.11	1	2	20
7440-09-7	POTASSIUM	4900		4610		105	1	5	20
7782-49-2	SELENIUM	2.1		2.27		0.526	1		20
7440-22-4	SILVER	1	U	1.05	U	1.05	1		20
7440-23-5	SODIUM	900		204	*	105	1	126	20
7440-28-0	THALLIUM	1.1		1.05	U	1.05	1		20
7440-31-5	TIN	5.2	U	5.26	U	5.26	1		20
7440-62-2	VANADIUM	22		21.9		1.05	1	1	20
7440-66-6	ZINC	140		79.2	*	2.11	1	55	20

Data Package ID: *it1111160-1*

ICP Metals

Method SW6010

Serial Dilution

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Field ID: BKGD-E-31-111107

Lab ID: 1111160-2L

Run ID: IT111118-2A1

Date Analyzed: 18-Nov-11

Result Units: mg/l

CASNO	Target Analyte	Sample Result	Samp Qual	SD Result	SD Qual	EPA Qualifier	%D
7429-90-5	ALUMINUM	117		113			3
7440-36-0	ANTIMONY	0.0200	U	0.100	U		
7440-38-2	ARSENIC	0.0558		0.0500	U		
7440-39-3	BARIUM	2.59		2.40			7
7440-41-7	BERYLLIUM	0.00742		0.0250	U		
7440-43-9	CADMIUM	0.00500	U	0.0250	U		
7440-70-2	CALCIUM	195		184			5
7440-47-3	CHROMIUM	0.0860		0.0816			
7440-48-4	COBALT	0.0531		0.0501			
7440-50-8	COPPER	0.120		0.110			9
7439-89-6	IRON	185		171			8
7439-92-1	LEAD	0.142		0.138			3
7439-95-4	MAGNESIUM	42.1		41.9			1
7439-96-5	MANGANESE	2.05		2.10			3
7439-98-7	MOLYBDENUM	0.0100	U	0.0500	U		
7440-02-0	NICKEL	0.110		0.112			
7440-09-7	POTASSIUM	46.4		37.5		E	19
7782-49-2	SELENIUM	0.0201		0.0250	U		
7440-22-4	SILVER	0.0100	U	0.0500	U		
7440-23-5	SODIUM	8.57		5.41			
7440-28-0	THALLIUM	0.0109		0.0500	U		
7440-31-5	TIN	0.0500	U	0.250	U		
7440-62-2	VANADIUM	0.212		0.213			0
7440-66-6	ZINC	1.33		1.27			4

Data Package ID: *it1111160-1*

Prep Batch ID: IP111116-4

Start Date: 11/16/11

End Date: 11/16/11

Concentration Method: NONE

Batch Created By: bas

Start Time: 14:00

End Time: 18:00

Extract Method: SW3005A

Date Created: 11/16/11

Prep Analyst: Brent A. Stanfield

Initial Volume Units: 9

Time Created: 13:58

Comments:

Final Volume Units: 9

Validated By: bas

Date Validated: 11/16/11

Time Validated: 14:31

QC Batch ID: IP111116-4-5

Lab ID	QC Type	Field ID	Matrix	Date Collected	Initial Wt/Vol	Final Wt/Vol	Cleanup Method	Cleanup DF	Order Number
IP111116-4	MB	XXXXXX	WATER	XXXXXX	50	50	NONE	1	1111185
IP111116-4	LCS	XXXXXX	WATER	XXXXXX	50	50	NONE	1	1111185
1111185-13	MS	XXXXXX	WATER	XXXXXX	50	50	NONE	1	1111185
1111185-13	MSD	XXXXXX	WATER	XXXXXX	50	50	NONE	1	1111185
1111185-13	DUP	XXXXXX	WATER	XXXXXX	50	50	NONE	1	1111185
1111160-1	SMP	ALSW-01-111107	WATER	11/7/2011	50	50	NONE	1	1111160
1111162-16	SMP	XXXXXX	WATER	XXXXXX	50	50	NONE	1	1111162
1111185-13	SMP	XXXXXX	WATER	XXXXXX	50	50	NONE	1	1111185

QC Types

CAR	Carrier reference sample	DUP	Laboratory Duplicate
LCS	Laboratory Control Sample	LCSD	Laboratory Control Sample Duplicate
MB	Method Blank	MS	Laboratory Matrix Spike
MSD	Laboratory Matrix Spike Duplicate	REP	Sample replicate
RVS	Reporting Level Verification Standar	SMP	Field Sample
SYS	Sample Yield Spike		

Prep Batch ID: IP111117-1

Start Date: 11/17/11

End Date: 11/17/11

Concentration Method: NONE

Batch Created By: bas

Start Time: 8:00

End Time: 17:00

Extract Method: SW3050B

Date Created: 11/17/11

Prep Analyst: Brent A. Stanfield

Initial Volume Units: g

Time Created: 7:04

Comments:

Final Volume Units: ml

Validated By: bas

Date Validated: 11/17/11

Time Validated: 8:15

QC Batch ID: IP111117-1-3

Lab ID	QC Type	Field ID	Matrix	Date Collected	Initial Wt/Vol	Final Wt/Vol	Cleanup Method	Cleanup DF	Order Number
IP111117-1	MB	XXXXXX	SOIL	XXXXXX	1	100	NONE	1	1111160
IP111117-1	LCS	XXXXXX	SOIL	XXXXXX	1	100	NONE	1	1111160
1111160-2	MS	BKGD-E-31-111107	SOIL	11/7/2011	1.002	100	NONE	1	1111160
1111160-2	MSD	BKGD-E-31-111107	SOIL	11/7/2011	1.006	100	NONE	1	1111160
1111160-2	DUP	BKGD-E-31-111107	SOIL	11/7/2011	1.016	100	NONE	1	1111160
1111160-10	SMP	S12-34-31-111107	SOIL	11/7/2011	1.036	100	NONE	1	1111160
1111160-11	SMP	S12-34-32-111107	SOIL	11/7/2011	1.024	100	NONE	1	1111160
1111160-12	SMP	S12-35-31-111107	SOIL	11/7/2011	1.019	100	NONE	1	1111160
1111160-13	SMP	S12-52-31-111107	SOIL	11/7/2011	1.026	100	NONE	1	1111160
1111160-14	SMP	S12-56-31-111107	SOIL	11/7/2011	1.007	100	NONE	1	1111160
1111160-15	SMP	S12-64-31-111107	SOIL	11/7/2011	1.009	100	NONE	1	1111160
1111160-2	SMP	BKGD-E-31-111107	SOIL	11/7/2011	1.02	100	NONE	1	1111160
1111160-3	SMP	BKGD-N-31-111107	SOIL	11/7/2011	1.028	100	NONE	1	1111160
1111160-4	SMP	BKGD-S-31-111107	SOIL	11/7/2011	1.018	100	NONE	1	1111160
1111160-5	SMP	BKGD-W-31-111107	SOIL	11/7/2011	1.004	100	NONE	1	1111160
1111160-6	SMP	S12-12-31-111107	SOIL	11/7/2011	1.014	100	NONE	1	1111160
1111160-7	SMP	S12-14-31-111107	SOIL	11/7/2011	1.038	100	NONE	1	1111160
1111160-8	SMP	S12-22-31-111107	SOIL	11/7/2011	1.004	100	NONE	1	1111160
1111160-9	SMP	S12-33-31-111107	SOIL	11/7/2011	1.03	100	NONE	1	1111160

QC Types

CAR	Carrier reference sample	DUP	Laboratory Duplicate
LCS	Laboratory Control Sample	LCSD	Laboratory Control Sample Duplicate
MB	Method Blank	MS	Laboratory Matrix Spike
MSD	Laboratory Matrix Spike Duplicate	REP	Sample replicate
RVS	Reporting Level Verification Standar	SMP	Field Sample
SYS	Sample Yield Spike		

ICP Metals

Method SW6010

Calibration Verifications

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Lab ID: ICV QC Type: Initial Calibration	Run ID: IT111117-2A1 Date Analyzed: 11/17/2011 Time Analyzed: 14:28 Result Units: MG/L
File Name: 111117A.	

CASNO	Target Analyte	Spike Added	Result	Reporting Limit	Result Qualifier	% Rec.	Control Limits
7429-90-5	ALUMINUM	25	25.6	0.2		102	90 - 110%
7440-36-0	ANTIMONY	0.25	0.256	0.02		102	90 - 110%
7440-38-2	ARSENIC	0.25	0.251	0.01		100	90 - 110%
7440-39-3	BARIUM	0.5	0.498	0.1		100	90 - 110%
7440-41-7	BERYLLIUM	0.25	0.241	0.005		97	90 - 110%
7440-43-9	CADMIUM	0.25	0.260	0.005		104	90 - 110%
7440-70-2	CALCIUM	25	25.0	1		100	90 - 110%
7440-47-3	CHROMIUM	0.5	0.501	0.01		100	90 - 110%
7440-48-4	COBALT	0.25	0.250	0.01		100	90 - 110%
7440-50-8	COPPER	0.5	0.492	0.01		98	90 - 110%
7439-89-6	IRON	10	10.2	0.1		102	90 - 110%
7439-92-1	LEAD	0.5	0.495	0.003		99	90 - 110%
7439-95-4	MAGNESIUM	25	25.3	1		101	90 - 110%
7439-96-5	MANGANESE	0.5	0.496	0.01		99	90 - 110%
7439-98-7	MOLYBDENUM	0.5	0.498	0.01		100	90 - 110%
7440-02-0	NICKEL	0.5	0.478	0.02		96	90 - 110%
7440-09-7	POTASSIUM	25	24.7	1		99	90 - 110%
7782-49-2	SELENIUM	0.5	0.500	0.005		100	90 - 110%
7440-22-4	SILVER	0.1	0.102	0.01		102	90 - 110%
7440-23-5	SODIUM	25	23.8	1		95	90 - 110%
7440-28-0	THALLIUM	0.25	0.245	0.01		98	90 - 110%
7440-31-5	TIN	0.5	0.495	0.05		99	90 - 110%
7440-61-1	URANIUM	2.5	2.46	0.2		98	90 - 110%
7440-62-2	VANADIUM	0.25	0.249	0.01		100	90 - 110%
7440-66-6	ZINC	0.5	0.483	0.02		97	90 - 110%

Data Package ID: #1111160-1

ICP Metals

Method SW6010

Calibration Verifications

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Lab ID: CCV1
QC Type: Continuing Calibration

Run ID: IT111117-2A1
Date Analyzed: 11/17/2011
Time Analyzed: 14:46
Result Units: MG/L

File Name: 111117A.

CASNO	Target Analyte	Spike Added	Result	Reporting Limit	Result Qualifier	% Rec.	Control Limits
7429-90-5	ALUMINUM	50	51.6	0.2		103	90 - 110%
7440-36-0	ANTIMONY	0.5	0.481	0.02		96	90 - 110%
7440-38-2	ARSENIC	0.5	0.511	0.01		102	90 - 110%
7440-39-3	BARIUM	1	1.01	0.1		101	90 - 110%
7440-41-7	BERYLLIUM	0.5	0.491	0.005		98	90 - 110%
7440-43-9	CADMIUM	0.5	0.531	0.005		106	90 - 110%
7440-70-2	CALCIUM	50	51.1	1		102	90 - 110%
7440-47-3	CHROMIUM	1	1.02	0.01		102	90 - 110%
7440-48-4	COBALT	0.5	0.505	0.01		101	90 - 110%
7440-50-8	COPPER	1	1.01	0.01		101	90 - 110%
7439-89-6	IRON	20	20.8	0.1		104	90 - 110%
7439-92-1	LEAD	1	1.01	0.003		101	90 - 110%
7439-95-4	MAGNESIUM	50	51.1	1		102	90 - 110%
7439-96-5	MANGANESE	1	0.997	0.01		100	90 - 110%
7439-98-7	MOLYBDENUM	1	1.02	0.01		102	90 - 110%
7440-02-0	NICKEL	1	0.986	0.02		99	90 - 110%
7440-09-7	POTASSIUM	50	51.9	1		104	90 - 110%
7782-49-2	SELENIUM	1	1.03	0.005		103	90 - 110%
7440-22-4	SILVER	0.2	0.217	0.01		108	90 - 110%
7440-23-5	SODIUM	50	49.0	1		98	90 - 110%
7440-28-0	THALLIUM	0.5	0.509	0.01		102	90 - 110%
7440-31-5	TIN	1	1.02	0.05		102	90 - 110%
7440-61-1	URANIUM	5	4.94	0.2		99	90 - 110%
7440-62-2	VANADIUM	0.5	0.503	0.01		101	90 - 110%
7440-66-6	ZINC	1	0.983	0.02		98	90 - 110%

Data Package ID: *it1111160-1*

ICP Metals

Method SW6010

Calibration Verifications

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Lab ID: CCV2

QC Type: Continuing Calibration

File Name: 111117A.

Run ID: IT111117-2A1

Date Analyzed: 11/17/2011

Time Analyzed: 15:09

Result Units: MG/L

CASNO	Target Analyte	Spike Added	Result	Reporting Limit	Result Qualifier	% Rec.	Control Limits
7429-90-5	ALUMINUM	50	52.1	0.2		104	90 - 110%
7440-36-0	ANTIMONY	0.5	0.487	0.02		97	90 - 110%
7440-38-2	ARSENIC	0.5	0.524	0.01		105	90 - 110%
7440-39-3	BARIUM	1	1.03	0.1		103	90 - 110%
7440-41-7	BERYLLIUM	0.5	0.491	0.005		98	90 - 110%
7440-43-9	CADMIUM	0.5	0.535	0.005		107	90 - 110%
7440-70-2	CALCIUM	50	51.1	1		102	90 - 110%
7440-47-3	CHROMIUM	1	1.02	0.01		102	90 - 110%
7440-48-4	COBALT	0.5	0.508	0.01		102	90 - 110%
7440-50-8	COPPER	1	1.03	0.01		103	90 - 110%
7439-89-6	IRON	20	20.8	0.1		104	90 - 110%
7439-92-1	LEAD	1	1.01	0.003		101	90 - 110%
7439-95-4	MAGNESIUM	50	51.3	1		103	90 - 110%
7439-96-5	MANGANESE	1	0.996	0.01		100	90 - 110%
7439-98-7	MOLYBDENUM	1	1.03	0.01		103	90 - 110%
7440-02-0	NICKEL	1	1.00	0.02		100	90 - 110%
7440-09-7	POTASSIUM	50	52.6	1		105	90 - 110%
7782-49-2	SELENIUM	1	1.04	0.005		104	90 - 110%
7440-22-4	SILVER	0.2	0.219	0.01		110	90 - 110%
7440-23-5	SODIUM	50	49.3	1		99	90 - 110%
7440-28-0	THALLIUM	0.5	0.521	0.01		104	90 - 110%
7440-31-5	TIN	1	1.02	0.05		102	90 - 110%
7440-61-1	URANIUM	5	5.01	0.2		100	90 - 110%
7440-62-2	VANADIUM	0.5	0.506	0.01		101	90 - 110%
7440-66-6	ZINC	1	0.971	0.02		97	90 - 110%

Data Package ID: #1111160-1

ICP Metals

Method SW6010

Calibration Verifications

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Lab ID: CCV3
 QC Type: Continuing Calibration

Run ID: IT111117-2A1

Date Analyzed: 11/17/2011

Time Analyzed: 15:16

Result Units: MG/L

File Name: 111117A.

CASNO	Target Analyte	Spike Added	Result	Reporting Limit	Result Qualifier	% Rec.	Control Limits
7429-90-5	ALUMINUM	50	50.8	0.2		102	90 - 110%
7440-36-0	ANTIMONY	0.5	0.471	0.02		94	90 - 110%
7440-38-2	ARSENIC	0.5	0.503	0.01		101	90 - 110%
7440-39-3	BARIUM	1	0.997	0.1		100	90 - 110%
7440-41-7	BERYLLIUM	0.5	0.476	0.005		95	90 - 110%
7440-43-9	CADMIUM	0.5	0.522	0.005		104	90 - 110%
7440-70-2	CALCIUM	50	49.5	1		99	90 - 110%
7440-47-3	CHROMIUM	1	0.990	0.01		99	90 - 110%
7440-48-4	COBALT	0.5	0.492	0.01		98	90 - 110%
7440-50-8	COPPER	1	1.00	0.01		100	90 - 110%
7439-89-6	IRON	20	20.2	0.1		101	90 - 110%
7439-92-1	LEAD	1	0.978	0.003		98	90 - 110%
7439-95-4	MAGNESIUM	50	49.9	1		100	90 - 110%
7439-96-5	MANGANESE	1	0.969	0.01		97	90 - 110%
7439-98-7	MOLYBDENUM	1	0.994	0.01		99	90 - 110%
7440-02-0	NICKEL	1	0.960	0.02		96	90 - 110%
7440-09-7	POTASSIUM	50	51.5	1		103	90 - 110%
7782-49-2	SELENIUM	1	1.01	0.005		101	90 - 110%
7440-22-4	SILVER	0.2	0.214	0.01		107	90 - 110%
7440-23-5	SODIUM	50	48.4	1		97	90 - 110%
7440-28-0	THALLIUM	0.5	0.501	0.01		100	90 - 110%
7440-31-5	TIN	1	0.985	0.05		99	90 - 110%
7440-61-1	URANIUM	5	4.87	0.2		97	90 - 110%
7440-62-2	VANADIUM	0.5	0.492	0.01		98	90 - 110%
7440-66-6	ZINC	1	0.938	0.02		94	90 - 110%

Data Package ID: *it1111160-1*

ICP Metals

Method SW6010

Calibration Verifications

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Lab ID: CCV4

QC Type: Continuing Calibration

File Name: 111117A.

Run ID: IT111117-2A1

Date Analyzed: 11/17/2011

Time Analyzed: 15:40

Result Units: MG/L

CASNO	Target Analyte	Spike Added	Result	Reporting Limit	Result Qualifier	% Rec.	Control Limits
7429-90-5	ALUMINUM	50	50.5	0.2		101	90 - 110%
7440-36-0	ANTIMONY	0.5	0.465	0.02		93	90 - 110%
7440-38-2	ARSENIC	0.5	0.496	0.01		99	90 - 110%
7440-39-3	BARIUM	1	0.990	0.1		99	90 - 110%
7440-41-7	BERYLLIUM	0.5	0.471	0.005		94	90 - 110%
7440-43-9	CADMIUM	0.5	0.520	0.005		104	90 - 110%
7440-70-2	CALCIUM	50	49.2	1		98	90 - 110%
7440-47-3	CHROMIUM	1	0.979	0.01		98	90 - 110%
7440-48-4	COBALT	0.5	0.488	0.01		98	90 - 110%
7440-50-8	COPPER	1	1.00	0.01		100	90 - 110%
7439-89-6	IRON	20	20.0	0.1		100	90 - 110%
7439-92-1	LEAD	1	0.969	0.003		97	90 - 110%
7439-95-4	MAGNESIUM	50	49.5	1		99	90 - 110%
7439-96-5	MANGANESE	1	0.956	0.01		96	90 - 110%
7439-98-7	MOLYBDENUM	1	0.983	0.01		98	90 - 110%
7440-02-0	NICKEL	1	0.957	0.02		96	90 - 110%
7440-09-7	POTASSIUM	50	51.4	1		103	90 - 110%
7782-49-2	SELENIUM	1	0.997	0.005		100	90 - 110%
7440-22-4	SILVER	0.2	0.212	0.01		106	90 - 110%
7440-23-5	SODIUM	50	48.3	1		97	90 - 110%
7440-28-0	THALLIUM	0.5	0.489	0.01		98	90 - 110%
7440-31-5	TIN	1	0.981	0.05		98	90 - 110%
7440-61-1	URANIUM	5	4.84	0.2		97	90 - 110%
7440-62-2	VANADIUM	0.5	0.487	0.01		97	90 - 110%
7440-66-6	ZINC	1	0.919	0.02		92	90 - 110%

Data Package ID: *it1111160-1*

ICP Metals

Method SW6010

Calibration Verifications

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Lab ID: CCV5
QC Type: Continuing Calibration

Run ID: IT111117-2A1
Date Analyzed: 11/17/2011
Time Analyzed: 16:03
Result Units: MG/L

File Name: 111117A.

CASNO	Target Analyte	Spike Added	Result	Reporting Limit	Result Qualifier	% Rec.	Control Limits
7429-90-5	ALUMINUM	50	50.9	0.2		102	90 - 110%
7440-36-0	ANTIMONY	0.5	0.464	0.02		93	90 - 110%
7440-38-2	ARSENIC	0.5	0.496	0.01		99	90 - 110%
7440-39-3	BARIUM	1	0.994	0.1		99	90 - 110%
7440-41-7	BERYLLIUM	0.5	0.479	0.005		96	90 - 110%
7440-43-9	CADMIUM	0.5	0.515	0.005		103	90 - 110%
7440-70-2	CALCIUM	50	49.5	1		99	90 - 110%
7440-47-3	CHROMIUM	1	0.994	0.01		99	90 - 110%
7440-48-4	COBALT	0.5	0.493	0.01		99	90 - 110%
7440-50-8	COPPER	1	0.998	0.01		100	90 - 110%
7439-89-6	IRON	20	20.2	0.1		101	90 - 110%
7439-92-1	LEAD	1	0.983	0.003		98	90 - 110%
7439-95-4	MAGNESIUM	50	50.1	1		100	90 - 110%
7439-96-5	MANGANESE	1	0.973	0.01		97	90 - 110%
7439-98-7	MOLYBDENUM	1	0.989	0.01		99	90 - 110%
7440-02-0	NICKEL	1	0.949	0.02		95	90 - 110%
7440-09-7	POTASSIUM	50	51.2	1		102	90 - 110%
7782-49-2	SELENIUM	1	1.02	0.005		102	90 - 110%
7440-22-4	SILVER	0.2	0.213	0.01		106	90 - 110%
7440-23-5	SODIUM	50	48.4	1		97	90 - 110%
7440-28-0	THALLIUM	0.5	0.489	0.01		98	90 - 110%
7440-31-5	TIN	1	0.986	0.05		99	90 - 110%
7440-61-1	URANIUM	5	4.89	0.2		98	90 - 110%
7440-62-2	VANADIUM	0.5	0.492	0.01		98	90 - 110%
7440-66-6	ZINC	1	0.947	0.02		95	90 - 110%

Data Package ID: *it1111160-1*

ICP Metals

Method SW6010

Calibration Verifications

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Lab ID: CCV6
QC Type: Continuing Calibration

Run ID: IT111117-2A1
Date Analyzed: 11/17/2011
Time Analyzed: 16:33
Result Units: MG/L

File Name: 111117A.

CASNO	Target Analyte	Spike Added	Result	Reporting Limit	Result Qualifier	% Rec.	Control Limits
7429-90-5	ALUMINUM	50	50.7	0.2		101	90 - 110%
7440-36-0	ANTIMONY	0.5	0.464	0.02		93	90 - 110%
7440-38-2	ARSENIC	0.5	0.500	0.01		100	90 - 110%
7440-39-3	BARIUM	1	0.989	0.1		99	90 - 110%
7440-41-7	BERYLLIUM	0.5	0.477	0.005		95	90 - 110%
7440-43-9	CADMIUM	0.5	0.515	0.005		103	90 - 110%
7440-70-2	CALCIUM	50	49.3	1		99	90 - 110%
7440-47-3	CHROMIUM	1	0.989	0.01		99	90 - 110%
7440-48-4	COBALT	0.5	0.491	0.01		98	90 - 110%
7440-50-8	COPPER	1	0.998	0.01		100	90 - 110%
7439-89-6	IRON	20	20.1	0.1		101	90 - 110%
7439-92-1	LEAD	1	0.977	0.003		98	90 - 110%
7439-95-4	MAGNESIUM	50	49.9	1		100	90 - 110%
7439-96-5	MANGANESE	1	0.967	0.01		97	90 - 110%
7439-98-7	MOLYBDENUM	1	0.985	0.01		99	90 - 110%
7440-02-0	NICKEL	1	0.948	0.02		95	90 - 110%
7440-09-7	POTASSIUM	50	51.1	1		102	90 - 110%
7782-49-2	SELENIUM	1	1.00	0.005		100	90 - 110%
7440-22-4	SILVER	0.2	0.213	0.01		106	90 - 110%
7440-23-5	SODIUM	50	48.4	1		97	90 - 110%
7440-28-0	THALLIUM	0.5	0.487	0.01		97	90 - 110%
7440-31-5	TIN	1	0.985	0.05		99	90 - 110%
7440-61-1	URANIUM	5	4.86	0.2		97	90 - 110%
7440-62-2	VANADIUM	0.5	0.490	0.01		98	90 - 110%
7440-66-6	ZINC	1	0.941	0.02		94	90 - 110%

Data Package ID: *it1111160-1*

ICP Metals

Method SW6010

Calibration Verifications

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Lab ID: CCV7
 QC Type: Continuing Calibration

Run ID: IT111117-2A1
 Date Analyzed: 11/17/2011
 Time Analyzed: 16:55
 Result Units: MG/L

File Name: 111117A.

CASNO	Target Analyte	Spike Added	Result	Reporting Limit	Result Qualifier	% Rec.	Control Limits
7429-90-5	ALUMINUM	50	50.6	0.2		101	90 - 110%
7440-36-0	ANTIMONY	0.5	0.462	0.02		92	90 - 110%
7440-38-2	ARSENIC	0.5	0.500	0.01		100	90 - 110%
7440-39-3	BARIUM	1	0.989	0.1		99	90 - 110%
7440-41-7	BERYLLIUM	0.5	0.472	0.005		94	90 - 110%
7440-43-9	CADMIUM	0.5	0.514	0.005		103	90 - 110%
7440-70-2	CALCIUM	50	49.0	1		98	90 - 110%
7440-47-3	CHROMIUM	1	0.983	0.01		98	90 - 110%
7440-48-4	COBALT	0.5	0.487	0.01		97	90 - 110%
7440-50-8	COPPER	1	1.00	0.01		100	90 - 110%
7439-89-6	IRON	20	20.0	0.1		100	90 - 110%
7439-92-1	LEAD	1	0.967	0.003		97	90 - 110%
7439-95-4	MAGNESIUM	50	49.7	1		99	90 - 110%
7439-96-5	MANGANESE	1	0.958	0.01		96	90 - 110%
7439-98-7	MOLYBDENUM	1	0.987	0.01		99	90 - 110%
7440-02-0	NICKEL	1	0.950	0.02		95	90 - 110%
7440-09-7	POTASSIUM	50	51.1	1		102	90 - 110%
7782-49-2	SELENIUM	1	1.00	0.005		100	90 - 110%
7440-22-4	SILVER	0.2	0.213	0.01		107	90 - 110%
7440-23-5	SODIUM	50	48.3	1		97	90 - 110%
7440-28-0	THALLIUM	0.5	0.500	0.01		100	90 - 110%
7440-31-5	TIN	1	0.980	0.05		98	90 - 110%
7440-61-1	URANIUM	5	4.86	0.2		97	90 - 110%
7440-62-2	VANADIUM	0.5	0.488	0.01		98	90 - 110%
7440-66-6	ZINC	1	0.928	0.02		93	90 - 110%

Data Package ID: #1111160-1

ICP Metals

Method SW6010

Calibration Verifications

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Lab ID: CCV8
QC Type: Continuing Calibration

Run ID: IT111117-2A1
Date Analyzed: 11/17/2011
Time Analyzed: 17:19
Result Units: MG/L

File Name: 111117A.

CASNO	Target Analyte	Spike Added	Result	Reporting Limit	Result Qualifier	% Rec.	Control Limits
7429-90-5	ALUMINUM	50	50.5	0.2		101	90 - 110%
7440-36-0	ANTIMONY	0.5	0.463	0.02		93	90 - 110%
7440-38-2	ARSENIC	0.5	0.496	0.01		99	90 - 110%
7440-39-3	BARIUM	1	0.985	0.1		98	90 - 110%
7440-41-7	BERYLLIUM	0.5	0.469	0.005		94	90 - 110%
7440-43-9	CADMIUM	0.5	0.515	0.005		103	90 - 110%
7440-70-2	CALCIUM	50	48.8	1		98	90 - 110%
7440-47-3	CHROMIUM	1	0.975	0.01		98	90 - 110%
7440-48-4	COBALT	0.5	0.485	0.01		97	90 - 110%
7440-50-8	COPPER	1	1.00	0.01		100	90 - 110%
7439-89-6	IRON	20	19.8	0.1		99	90 - 110%
7439-92-1	LEAD	1	0.960	0.003		96	90 - 110%
7439-95-4	MAGNESIUM	50	49.4	1		99	90 - 110%
7439-96-5	MANGANESE	1	0.951	0.01		95	90 - 110%
7439-98-7	MOLYBDENUM	1	0.977	0.01		98	90 - 110%
7440-02-0	NICKEL	1	0.951	0.02		95	90 - 110%
7440-09-7	POTASSIUM	50	51.0	1		102	90 - 110%
7782-49-2	SELENIUM	1	1.00	0.005		100	90 - 110%
7440-22-4	SILVER	0.2	0.213	0.01		107	90 - 110%
7440-23-5	SODIUM	50	48.3	1		97	90 - 110%
7440-28-0	THALLIUM	0.5	0.492	0.01		98	90 - 110%
7440-31-5	TIN	1	0.975	0.05		97	90 - 110%
7440-61-1	URANIUM	5	4.83	0.2		97	90 - 110%
7440-62-2	VANADIUM	0.5	0.485	0.01		97	90 - 110%
7440-66-6	ZINC	1	0.916	0.02		92	90 - 110%

Data Package ID: *it1111160-1*

ICP Metals

Method SW6010

Calibration Verifications

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Lab ID: CCV9
QC Type: Continuing Calibration

Run ID: IT111117-2A1
Date Analyzed: 11/17/2011
Time Analyzed: 17:43
Result Units: MG/L

File Name: 111117A.

CASNO	Target Analyte	Spike Added	Result	Reporting Limit	Result Qualifier	% Rec.	Control Limits
7429-90-5	ALUMINUM	50	50.7	0.2		101	90 - 110%
7440-36-0	ANTIMONY	0.5	0.464	0.02		93	90 - 110%
7440-38-2	ARSENIC	0.5	0.496	0.01		99	90 - 110%
7440-39-3	BARIUM	1	0.983	0.1		98	90 - 110%
7440-41-7	BERYLLIUM	0.5	0.477	0.005		95	90 - 110%
7440-43-9	CADMIUM	0.5	0.512	0.005		102	90 - 110%
7440-70-2	CALCIUM	50	49.4	1		99	90 - 110%
7440-47-3	CHROMIUM	1	0.990	0.01		99	90 - 110%
7440-48-4	COBALT	0.5	0.491	0.01		98	90 - 110%
7440-50-8	COPPER	1	0.996	0.01		100	90 - 110%
7439-89-6	IRON	20	20.1	0.1		101	90 - 110%
7439-92-1	LEAD	1	0.977	0.003		98	90 - 110%
7439-95-4	MAGNESIUM	50	50.1	1		100	90 - 110%
7439-96-5	MANGANESE	1	0.966	0.01		97	90 - 110%
7439-98-7	MOLYBDENUM	1	0.982	0.01		98	90 - 110%
7440-02-0	NICKEL	1	0.946	0.02		95	90 - 110%
7440-09-7	POTASSIUM	50	50.8	1		102	90 - 110%
7782-49-2	SELENIUM	1	1.01	0.005		101	90 - 110%
7440-22-4	SILVER	0.2	0.214	0.01		107	90 - 110%
7440-23-5	SODIUM	50	48.2	1		96	90 - 110%
7440-28-0	THALLIUM	0.5	0.497	0.01		99	90 - 110%
7440-31-5	TIN	1	0.987	0.05		99	90 - 110%
7440-61-1	URANIUM	5	4.83	0.2		97	90 - 110%
7440-62-2	VANADIUM	0.5	0.489	0.01		98	90 - 110%
7440-66-6	ZINC	1	0.948	0.02		95	90 - 110%

Data Package ID: *it1111160-1*

ICP Metals

Method SW6010

Calibration Verifications

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Lab ID: ICV
QC Type: Initial Calibration

Run ID: IT111118-2A1
Date Analyzed: 11/18/2011
Time Analyzed: 14:47
Result Units: MG/L

File Name:111118A.

CASNO	Target Analyte	Spike Added	Result	Reporting Limit	Result Qualifier	% Rec.	Control Limits
7429-90-5	ALUMINUM	25	25.9	0.2		103	90 - 110%
7440-36-0	ANTIMONY	0.25	0.239	0.02		96	90 - 110%
7440-38-2	ARSENIC	0.25	0.250	0.01		100	90 - 110%
7440-39-3	BARIUM	0.5	0.501	0.1		100	90 - 110%
7440-41-7	BERYLLIUM	0.25	0.240	0.005		96	90 - 110%
7440-43-9	CADMIUM	0.25	0.245	0.005		98	90 - 110%
7440-70-2	CALCIUM	25	24.4	1		98	90 - 110%
7440-47-3	CHROMIUM	0.5	0.496	0.01		99	90 - 110%
7440-48-4	COBALT	0.25	0.245	0.01		98	90 - 110%
7440-50-8	COPPER	0.5	0.497	0.01		99	90 - 110%
7439-89-6	IRON	10	10.1	0.1		101	90 - 110%
7439-92-1	LEAD	0.5	0.509	0.003		102	90 - 110%
7439-95-4	MAGNESIUM	25	25.2	1		101	90 - 110%
7439-96-5	MANGANESE	0.5	0.506	0.01		101	90 - 110%
7439-98-7	MOLYBDENUM	0.5	0.492	0.01		98	90 - 110%
7440-02-0	NICKEL	0.5	0.474	0.02		95	90 - 110%
7440-09-7	POTASSIUM	25	22.9	1		92	90 - 110%
7782-49-2	SELENIUM	0.5	0.517	0.005		103	90 - 110%
7440-22-4	SILVER	0.1	0.0927	0.01		93	90 - 110%
7440-23-5	SODIUM	25	23.3	1		93	90 - 110%
7440-28-0	THALLIUM	0.25	0.252	0.01		101	90 - 110%
7440-31-5	TIN	0.5	0.515	0.05		103	90 - 110%
7440-61-1	URANIUM	2.5	2.45	0.2		98	90 - 110%
7440-62-2	VANADIUM	0.25	0.245	0.01		98	90 - 110%
7440-66-6	ZINC	0.5	0.499	0.02		100	90 - 110%

Data Package ID: #1111160-1

ICP Metals

Method SW6010

Calibration Verifications

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Lab ID: CCV1
 QC Type: Continuing Calibration

Run ID: IT111118-2A1
 Date Analyzed: 11/18/2011
 Time Analyzed: 15:00
 Result Units: MG/L

File Name: 111118A.

CASNO	Target Analyte	Spike Added	Result	Reporting Limit	Result Qualifier	% Rec.	Control Limits
7429-90-5	ALUMINUM	50	53.5	0.2		107	90 - 110%
7440-36-0	ANTIMONY	0.5	0.503	0.02		101	90 - 110%
7440-38-2	ARSENIC	0.5	0.512	0.01		102	90 - 110%
7440-39-3	BARIUM	1	1.05	0.1		105	90 - 110%
7440-41-7	BERYLLIUM	0.5	0.486	0.005		97	90 - 110%
7440-43-9	CADMIUM	0.5	0.496	0.005		99	90 - 110%
7440-70-2	CALCIUM	50	48.6	1		97	90 - 110%
7440-47-3	CHROMIUM	1	0.988	0.01		99	90 - 110%
7440-48-4	COBALT	0.5	0.487	0.01		97	90 - 110%
7440-50-8	COPPER	1	1.05	0.01		105	90 - 110%
7439-89-6	IRON	20	20.6	0.1		103	90 - 110%
7439-92-1	LEAD	1	1.03	0.003		103	90 - 110%
7439-95-4	MAGNESIUM	50	51.0	1		102	90 - 110%
7439-96-5	MANGANESE	1	1.00	0.01		100	90 - 110%
7439-98-7	MOLYBDENUM	1	0.993	0.01		99	90 - 110%
7440-02-0	NICKEL	1	0.961	0.02		96	90 - 110%
7440-09-7	POTASSIUM	50	49.8	1		100	90 - 110%
7782-49-2	SELENIUM	1	1.07	0.005		107	90 - 110%
7440-22-4	SILVER	0.2	0.198	0.01		99	90 - 110%
7440-23-5	SODIUM	50	49.6	1		99	90 - 110%
7440-28-0	THALLIUM	0.5	0.535	0.01		107	90 - 110%
7440-31-5	TIN	1	1.05	0.05		105	90 - 110%
7440-61-1	URANIUM	5	5.12	0.2		102	90 - 110%
7440-62-2	VANADIUM	0.5	0.491	0.01		98	90 - 110%
7440-66-6	ZINC	1	0.964	0.02		96	90 - 110%

Data Package ID: *it1111160-1*

ICP Metals

Method SW6010

Calibration Verifications

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Lab ID: CCV2
 QC Type: Continuing Calibration

Run ID: IT111118-2A1

Date Analyzed: 11/18/2011

Time Analyzed: 15:23

Result Units: MG/L

File Name: 111118A.

CASNO	Target Analyte	Spike Added	Result	Reporting Limit	Result Qualifier	% Rec.	Control Limits
7429-90-5	ALUMINUM	50	53.6	0.2		107	90 - 110%
7440-36-0	ANTIMONY	0.5	0.505	0.02		101	90 - 110%
7440-38-2	ARSENIC	0.5	0.512	0.01		102	90 - 110%
7440-39-3	BARIUM	1	1.05	0.1		105	90 - 110%
7440-41-7	BERYLLIUM	0.5	0.484	0.005		97	90 - 110%
7440-43-9	CADMIUM	0.5	0.498	0.005		100	90 - 110%
7440-70-2	CALCIUM	50	48.4	1		97	90 - 110%
7440-47-3	CHROMIUM	1	0.983	0.01		98	90 - 110%
7440-48-4	COBALT	0.5	0.488	0.01		98	90 - 110%
7440-50-8	COPPER	1	1.06	0.01		106	90 - 110%
7439-89-6	IRON	20	20.5	0.1		103	90 - 110%
7439-92-1	LEAD	1	1.02	0.003		102	90 - 110%
7439-95-4	MAGNESIUM	50	51.1	1		102	90 - 110%
7439-96-5	MANGANESE	1	0.997	0.01		100	90 - 110%
7439-98-7	MOLYBDENUM	1	0.991	0.01		99	90 - 110%
7440-02-0	NICKEL	1	0.963	0.02		96	90 - 110%
7440-09-7	POTASSIUM	50	50.1	1		100	90 - 110%
7782-49-2	SELENIUM	1	1.06	0.005		106	90 - 110%
7440-22-4	SILVER	0.2	0.199	0.01		99	90 - 110%
7440-23-5	SODIUM	50	49.6	1		99	90 - 110%
7440-28-0	THALLIUM	0.5	0.545	0.01		109	90 - 110%
7440-31-5	TIN	1	1.05	0.05		105	90 - 110%
7440-61-1	URANIUM	5	5.12	0.2		102	90 - 110%
7440-62-2	VANADIUM	0.5	0.490	0.01		98	90 - 110%
7440-66-6	ZINC	1	0.951	0.02		95	90 - 110%

Data Package ID: #1111160-1

ICP Metals

Method SW6010

Calibration Verifications

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Lab ID: CCV3
QC Type: Continuing Calibration

Run ID: IT111118-2A1

Date Analyzed: 11/18/2011

Time Analyzed: 15:48

File Name: 111118A.

Result Units: MG/L

CASNO	Target Analyte	Spike Added	Result	Reporting Limit	Result Qualifier	% Rec.	Control Limits
7429-90-5	ALUMINUM	50	53.6	0.2		107	90 - 110%
7440-36-0	ANTIMONY	0.5	0.502	0.02		100	90 - 110%
7440-38-2	ARSENIC	0.5	0.518	0.01		104	90 - 110%
7440-39-3	BARIUM	1	1.05	0.1		105	90 - 110%
7440-41-7	BERYLLIUM	0.5	0.485	0.005		97	90 - 110%
7440-43-9	CADMIUM	0.5	0.501	0.005		100	90 - 110%
7440-70-2	CALCIUM	50	48.1	1		96	90 - 110%
7440-47-3	CHROMIUM	1	0.981	0.01		98	90 - 110%
7440-48-4	COBALT	0.5	0.486	0.01		97	90 - 110%
7440-50-8	COPPER	1	1.05	0.01		105	90 - 110%
7439-89-6	IRON	20	20.4	0.1		102	90 - 110%
7439-92-1	LEAD	1	1.02	0.003		102	90 - 110%
7439-95-4	MAGNESIUM	50	51.0	1		102	90 - 110%
7439-96-5	MANGANESE	1	0.993	0.01		99	90 - 110%
7439-98-7	MOLYBDENUM	1	0.995	0.01		100	90 - 110%
7440-02-0	NICKEL	1	0.988	0.02		99	90 - 110%
7440-09-7	POTASSIUM	50	50.0	1		100	90 - 110%
7782-49-2	SELENIUM	1	1.05	0.005		105	90 - 110%
7440-22-4	SILVER	0.2	0.199	0.01		99	90 - 110%
7440-23-5	SODIUM	50	49.0	1		98	90 - 110%
7440-28-0	THALLIUM	0.5	0.525	0.01		105	90 - 110%
7440-31-5	TIN	1	1.06	0.05		106	90 - 110%
7440-61-1	URANIUM	5	5.10	0.2		102	90 - 110%
7440-62-2	VANADIUM	0.5	0.488	0.01		98	90 - 110%
7440-66-6	ZINC	1	0.963	0.02		96	90 - 110%

Data Package ID: *it1111160-1*

ICP Metals

Method SW6010

Calibration Verifications

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Lab ID: CCV4
QC Type: Continuing Calibration

Run ID: IT111118-2A1

Date Analyzed: 11/18/2011

Time Analyzed: 16:17

File Name: 111118A.

Result Units: MG/L

CASNO	Target Analyte	Spike Added	Result	Reporting Limit	Result Qualifier	% Rec.	Control Limits
7429-90-5	ALUMINUM	50	54.1	0.2		108	90 - 110%
7440-36-0	ANTIMONY	0.5	0.507	0.02		101	90 - 110%
7440-38-2	ARSENIC	0.5	0.525	0.01		105	90 - 110%
7440-39-3	BARIUM	1	1.06	0.1		106	90 - 110%
7440-41-7	BERYLLIUM	0.5	0.493	0.005		99	90 - 110%
7440-43-9	CADMIUM	0.5	0.512	0.005		102	90 - 110%
7440-70-2	CALCIUM	50	49.6	1		99	90 - 110%
7440-47-3	CHROMIUM	1	1.00	0.01		100	90 - 110%
7440-48-4	COBALT	0.5	0.497	0.01		99	90 - 110%
7440-50-8	COPPER	1	1.05	0.01		105	90 - 110%
7439-89-6	IRON	20	20.8	0.1		104	90 - 110%
7439-92-1	LEAD	1	1.03	0.003		103	90 - 110%
7439-95-4	MAGNESIUM	50	51.5	1		103	90 - 110%
7439-96-5	MANGANESE	1	1.01	0.01		101	90 - 110%
7439-98-7	MOLYBDENUM	1	1.01	0.01		101	90 - 110%
7440-02-0	NICKEL	1	1.01	0.02		101	90 - 110%
7440-09-7	POTASSIUM	50	50.3	1		101	90 - 110%
7782-49-2	SELENIUM	1	1.07	0.005		107	90 - 110%
7440-22-4	SILVER	0.2	0.202	0.01		101	90 - 110%
7440-23-5	SODIUM	50	50.1	1		100	90 - 110%
7440-28-0	THALLIUM	0.5	0.541	0.01		108	90 - 110%
7440-31-5	TIN	1	1.08	0.05		108	90 - 110%
7440-61-1	URANIUM	5	5.11	0.2		102	90 - 110%
7440-62-2	VANADIUM	0.5	0.497	0.01		99	90 - 110%
7440-66-6	ZINC	1	0.991	0.02		99	90 - 110%

Data Package ID: *it1111160-1*

ICP Metals

Method SW6010

Calibration Verifications

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Lab ID: CCV5
QC Type: Continuing Calibration

Run ID: IT111118-2A1

Date Analyzed: 11/18/2011

Time Analyzed: 16:44

Result Units: MG/L

File Name: 111118A.

CASNO	Target Analyte	Spike Added	Result	Reporting Limit	Result Qualifier	% Rec.	Control Limits
7429-90-5	ALUMINUM	50	53.2	0.2		106	90 - 110%
7440-36-0	ANTIMONY	0.5	0.508	0.02		102	90 - 110%
7440-38-2	ARSENIC	0.5	0.512	0.01		102	90 - 110%
7440-39-3	BARIUM	1	1.04	0.1		104	90 - 110%
7440-41-7	BERYLLIUM	0.5	0.483	0.005		97	90 - 110%
7440-43-9	CADMIUM	0.5	0.506	0.005		101	90 - 110%
7440-70-2	CALCIUM	50	48.7	1		97	90 - 110%
7440-47-3	CHROMIUM	1	0.982	0.01		98	90 - 110%
7440-48-4	COBALT	0.5	0.488	0.01		98	90 - 110%
7440-50-8	COPPER	1	1.04	0.01		104	90 - 110%
7439-89-6	IRON	20	20.3	0.1		102	90 - 110%
7439-92-1	LEAD	1	1.01	0.003		101	90 - 110%
7439-95-4	MAGNESIUM	50	50.6	1		101	90 - 110%
7439-96-5	MANGANESE	1	0.987	0.01		99	90 - 110%
7439-98-7	MOLYBDENUM	1	1.00	0.01		100	90 - 110%
7440-02-0	NICKEL	1	0.997	0.02		100	90 - 110%
7440-09-7	POTASSIUM	50	49.6	1		99	90 - 110%
7782-49-2	SELENIUM	1	1.05	0.005		105	90 - 110%
7440-22-4	SILVER	0.2	0.200	0.01		100	90 - 110%
7440-23-5	SODIUM	50	49.4	1		99	90 - 110%
7440-28-0	THALLIUM	0.5	0.536	0.01		107	90 - 110%
7440-31-5	TIN	1	1.05	0.05		105	90 - 110%
7440-61-1	URANIUM	5	5.02	0.2		100	90 - 110%
7440-62-2	VANADIUM	0.5	0.490	0.01		98	90 - 110%
7440-66-6	ZINC	1	0.963	0.02		96	90 - 110%

Data Package ID: #1111160-1

ICP Metals

Method SW6010

Calibration Verifications

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Lab ID: CCV6
 QC Type: Continuing Calibration

Run ID: IT111118-2A1

Date Analyzed: 11/18/2011

Time Analyzed: 17:07

File Name: 111118A.

Result Units: MG/L

CASNO	Target Analyte	Spike Added	Result	Reporting Limit	Result Qualifier	% Rec.	Control Limits
7429-90-5	ALUMINUM	50	53.0	0.2		106	90 - 110%
7440-36-0	ANTIMONY	0.5	0.505	0.02		101	90 - 110%
7440-38-2	ARSENIC	0.5	0.515	0.01		103	90 - 110%
7440-39-3	BARIUM	1	1.04	0.1		104	90 - 110%
7440-41-7	BERYLLIUM	0.5	0.477	0.005		95	90 - 110%
7440-43-9	CADMIUM	0.5	0.501	0.005		100	90 - 110%
7440-70-2	CALCIUM	50	47.9	1		96	90 - 110%
7440-47-3	CHROMIUM	1	0.967	0.01		97	90 - 110%
7440-48-4	COBALT	0.5	0.482	0.01		96	90 - 110%
7440-50-8	COPPER	1	1.05	0.01		105	90 - 110%
7439-89-6	IRON	20	20.0	0.1		100	90 - 110%
7439-92-1	LEAD	1	0.993	0.003		99	90 - 110%
7439-95-4	MAGNESIUM	50	50.3	1		101	90 - 110%
7439-96-5	MANGANESE	1	0.972	0.01		97	90 - 110%
7439-98-7	MOLYBDENUM	1	0.986	0.01		99	90 - 110%
7440-02-0	NICKEL	1	0.993	0.02		99	90 - 110%
7440-09-7	POTASSIUM	50	49.8	1		100	90 - 110%
7782-49-2	SELENIUM	1	1.05	0.005		105	90 - 110%
7440-22-4	SILVER	0.2	0.198	0.01		99	90 - 110%
7440-23-5	SODIUM	50	49.4	1		99	90 - 110%
7440-28-0	THALLIUM	0.5	0.528	0.01		106	90 - 110%
7440-31-5	TIN	1	1.05	0.05		105	90 - 110%
7440-61-1	URANIUM	5	5.03	0.2		101	90 - 110%
7440-62-2	VANADIUM	0.5	0.483	0.01		97	90 - 110%
7440-66-6	ZINC	1	0.939	0.02		94	90 - 110%

Data Package ID: *it1111160-1*

ICP Metals

Method SW6010

Calibration Verifications

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Lab ID: CCV7
QC Type: Continuing Calibration

Run ID: IT111118-2A1
Date Analyzed: 11/18/2011
Time Analyzed: 17:26
Result Units: MG/L

File Name: 111118A.

CASNO	Target Analyte	Spike Added	Result	Reporting Limit	Result Qualifier	% Rec.	Control Limits
7429-90-5	ALUMINUM	50	54.1	0.2		108	90 - 110%
7440-36-0	ANTIMONY	0.5	0.517	0.02		103	90 - 110%
7440-38-2	ARSENIC	0.5	0.529	0.01		106	90 - 110%
7440-39-3	BARIUM	1	1.06	0.1		106	90 - 110%
7440-41-7	BERYLLIUM	0.5	0.489	0.005		98	90 - 110%
7440-43-9	CADMIUM	0.5	0.514	0.005		103	90 - 110%
7440-70-2	CALCIUM	50	49.1	1		98	90 - 110%
7440-47-3	CHROMIUM	1	0.988	0.01		99	90 - 110%
7440-48-4	COBALT	0.5	0.495	0.01		99	90 - 110%
7440-50-8	COPPER	1	1.07	0.01		107	90 - 110%
7439-89-6	IRON	20	20.4	0.1		102	90 - 110%
7439-92-1	LEAD	1	1.02	0.003		102	90 - 110%
7439-95-4	MAGNESIUM	50	51.3	1		103	90 - 110%
7439-96-5	MANGANESE	1	0.991	0.01		99	90 - 110%
7439-98-7	MOLYBDENUM	1	1.01	0.01		101	90 - 110%
7440-02-0	NICKEL	1	1.02	0.02		102	90 - 110%
7440-09-7	POTASSIUM	50	50.7	1		101	90 - 110%
7782-49-2	SELENIUM	1	1.07	0.005		107	90 - 110%
7440-22-4	SILVER	0.2	0.201	0.01		101	90 - 110%
7440-23-5	SODIUM	50	50.0	1		100	90 - 110%
7440-28-0	THALLIUM	0.5	0.548	0.01		110	90 - 110%
7440-31-5	TIN	1	1.08	0.05		108	90 - 110%
7440-61-1	URANIUM	5	5.13	0.2		103	90 - 110%
7440-62-2	VANADIUM	0.5	0.496	0.01		99	90 - 110%
7440-66-6	ZINC	1	0.965	0.02		97	90 - 110%

Data Package ID: *it1111160-1*

ICP Metals

Method SW6010

Calibration Verifications

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Lab ID: CCV8

QC Type: Continuing Calibration

Run ID: IT111118-2A1

Date Analyzed: 11/18/2011

Time Analyzed: 18:08

Result Units: MG/L

File Name: 111118A.

CASNO	Target Analyte	Spike Added	Result	Reporting Limit	Result Qualifier	% Rec.	Control Limits
7429-90-5	ALUMINUM	50	53.2	0.2		106	90 - 110%
7440-36-0	ANTIMONY	0.5	0.510	0.02		102	90 - 110%
7440-38-2	ARSENIC	0.5	0.522	0.01		104	90 - 110%
7440-39-3	BARIUM	1	1.04	0.1		104	90 - 110%
7440-41-7	BERYLLIUM	0.5	0.482	0.005		96	90 - 110%
7440-43-9	CADMIUM	0.5	0.508	0.005		102	90 - 110%
7440-70-2	CALCIUM	50	48.5	1		97	90 - 110%
7440-47-3	CHROMIUM	1	0.975	0.01		98	90 - 110%
7440-48-4	COBALT	0.5	0.487	0.01		97	90 - 110%
7440-50-8	COPPER	1	1.06	0.01		106	90 - 110%
7439-89-6	IRON	20	20.0	0.1		100	90 - 110%
7439-92-1	LEAD	1	1.00	0.003		100	90 - 110%
7439-95-4	MAGNESIUM	50	50.6	1		101	90 - 110%
7439-96-5	MANGANESE	1	0.977	0.01		98	90 - 110%
7439-98-7	MOLYBDENUM	1	0.995	0.01		99	90 - 110%
7440-02-0	NICKEL	1	1.01	0.02		101	90 - 110%
7440-09-7	POTASSIUM	50	49.8	1		100	90 - 110%
7782-49-2	SELENIUM	1	1.05	0.005		105	90 - 110%
7440-22-4	SILVER	0.2	0.200	0.01		100	90 - 110%
7440-23-5	SODIUM	50	49.4	1		99	90 - 110%
7440-28-0	THALLIUM	0.5	0.539	0.01		108	90 - 110%
7440-31-5	TIN	1	1.07	0.05		107	90 - 110%
7440-61-1	URANIUM	5	5.01	0.2		100	90 - 110%
7440-62-2	VANADIUM	0.5	0.487	0.01		97	90 - 110%
7440-66-6	ZINC	1	0.947	0.02		95	90 - 110%

Data Package ID: it1111160-1

ICP Metals

Method SW6010

Calibration Verifications

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Lab ID: CCV9
QC Type: Continuing Calibration

Run ID: IT111118-2A1

Date Analyzed: 11/18/2011

Time Analyzed: 18:34

Result Units: MG/L

File Name: 111118A.

CASNO	Target Analyte	Spike Added	Result	Reporting Limit	Result Qualifier	% Rec.	Control Limits
7429-90-5	ALUMINUM	50	52.4	0.2		105	90 - 110%
7440-36-0	ANTIMONY	0.5	0.501	0.02		100	90 - 110%
7440-38-2	ARSENIC	0.5	0.512	0.01		102	90 - 110%
7440-39-3	BARIUM	1	1.02	0.1		102	90 - 110%
7440-41-7	BERYLLIUM	0.5	0.476	0.005		95	90 - 110%
7440-43-9	CADMIUM	0.5	0.504	0.005		101	90 - 110%
7440-70-2	CALCIUM	50	48.4	1		97	90 - 110%
7440-47-3	CHROMIUM	1	0.969	0.01		97	90 - 110%
7440-48-4	COBALT	0.5	0.481	0.01		96	90 - 110%
7440-50-8	COPPER	1	1.03	0.01		103	90 - 110%
7439-89-6	IRON	20	19.9	0.1		99	90 - 110%
7439-92-1	LEAD	1	0.987	0.003		99	90 - 110%
7439-95-4	MAGNESIUM	50	50.0	1		100	90 - 110%
7439-96-5	MANGANESE	1	0.968	0.01		97	90 - 110%
7439-98-7	MOLYBDENUM	1	0.983	0.01		98	90 - 110%
7440-02-0	NICKEL	1	0.994	0.02		99	90 - 110%
7440-09-7	POTASSIUM	50	48.9	1		98	90 - 110%
7782-49-2	SELENIUM	1	1.03	0.005		103	90 - 110%
7440-22-4	SILVER	0.2	0.198	0.01		99	90 - 110%
7440-23-5	SODIUM	50	48.8	1		98	90 - 110%
7440-28-0	THALLIUM	0.5	0.532	0.01		106	90 - 110%
7440-31-5	TIN	1	1.06	0.05		106	90 - 110%
7440-61-1	URANIUM	5	4.90	0.2		98	90 - 110%
7440-62-2	VANADIUM	0.5	0.482	0.01		96	90 - 110%
7440-66-6	ZINC	1	0.948	0.02		95	90 - 110%

Data Package ID: it1111160-1

ICP Metals

Method SW6010

Calibration Verifications

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Lab ID: CCV10
QC Type: Continuing Calibration

Run ID: IT111118-2A1
Date Analyzed: 11/18/2011
Time Analyzed: 18:57
Result Units: MG/L

File Name: 111118A.

CASNO	Target Analyte	Spike Added	Result	Reporting Limit	Result Qualifier	% Rec.	Control Limits
7429-90-5	ALUMINUM	50	52.4	0.2		105	90 - 110%
7440-36-0	ANTIMONY	0.5	0.499	0.02		100	90 - 110%
7440-38-2	ARSENIC	0.5	0.514	0.01		103	90 - 110%
7440-39-3	BARIUM	1	1.03	0.1		103	90 - 110%
7440-41-7	BERYLLIUM	0.5	0.474	0.005		95	90 - 110%
7440-43-9	CADMIUM	0.5	0.501	0.005		100	90 - 110%
7440-70-2	CALCIUM	50	47.9	1		96	90 - 110%
7440-47-3	CHROMIUM	1	0.961	0.01		96	90 - 110%
7440-48-4	COBALT	0.5	0.479	0.01		96	90 - 110%
7440-50-8	COPPER	1	1.04	0.01		104	90 - 110%
7439-89-6	IRON	20	19.7	0.1		99	90 - 110%
7439-92-1	LEAD	1	0.985	0.003		99	90 - 110%
7439-95-4	MAGNESIUM	50	50.0	1		100	90 - 110%
7439-96-5	MANGANESE	1	0.961	0.01		96	90 - 110%
7439-98-7	MOLYBDENUM	1	0.982	0.01		98	90 - 110%
7440-02-0	NICKEL	1	0.992	0.02		99	90 - 110%
7440-09-7	POTASSIUM	50	49.2	1		98	90 - 110%
7782-49-2	SELENIUM	1	1.03	0.005		103	90 - 110%
7440-22-4	SILVER	0.2	0.198	0.01		99	90 - 110%
7440-23-5	SODIUM	50	48.9	1		98	90 - 110%
7440-28-0	THALLIUM	0.5	0.531	0.01		106	90 - 110%
7440-31-5	TIN	1	1.05	0.05		105	90 - 110%
7440-61-1	URANIUM	5	4.94	0.2		99	90 - 110%
7440-62-2	VANADIUM	0.5	0.481	0.01		96	90 - 110%
7440-66-6	ZINC	1	0.934	0.02		93	90 - 110%

Data Package ID: *it1111160-1*

ICP Metals

Method SW6010

Calibration Verifications

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Lab ID: CCV11
 QC Type: Continuing Calibration

Run ID: IT111118-2A1

Date Analyzed: 11/18/2011

Time Analyzed: 19:20

Result Units: MG/L

File Name: 111118A.

CASNO	Target Analyte	Spike Added	Result	Reporting Limit	Result Qualifier	% Rec.	Control Limits
7429-90-5	ALUMINUM	50	52.6	0.2		105	90 - 110%
7440-36-0	ANTIMONY	0.5	0.506	0.02		101	90 - 110%
7440-38-2	ARSENIC	0.5	0.515	0.01		103	90 - 110%
7440-39-3	BARIUM	1	1.03	0.1		103	90 - 110%
7440-41-7	BERYLLIUM	0.5	0.474	0.005		95	90 - 110%
7440-43-9	CADMIUM	0.5	0.504	0.005		101	90 - 110%
7440-70-2	CALCIUM	50	47.9	1		96	90 - 110%
7440-47-3	CHROMIUM	1	0.963	0.01		96	90 - 110%
7440-48-4	COBALT	0.5	0.481	0.01		96	90 - 110%
7440-50-8	COPPER	1	1.05	0.01		105	90 - 110%
7439-89-6	IRON	20	19.7	0.1		98	90 - 110%
7439-92-1	LEAD	1	0.986	0.003		99	90 - 110%
7439-95-4	MAGNESIUM	50	50.1	1		100	90 - 110%
7439-96-5	MANGANESE	1	0.960	0.01		96	90 - 110%
7439-98-7	MOLYBDENUM	1	0.978	0.01		98	90 - 110%
7440-02-0	NICKEL	1	0.995	0.02		100	90 - 110%
7440-09-7	POTASSIUM	50	49.3	1		99	90 - 110%
7782-49-2	SELENIUM	1	1.03	0.005		103	90 - 110%
7440-22-4	SILVER	0.2	0.199	0.01		99	90 - 110%
7440-23-5	SODIUM	50	49.1	1		98	90 - 110%
7440-28-0	THALLIUM	0.5	0.538	0.01		108	90 - 110%
7440-31-5	TIN	1	1.05	0.05		105	90 - 110%
7440-61-1	URANIUM	5	4.94	0.2		99	90 - 110%
7440-62-2	VANADIUM	0.5	0.482	0.01		96	90 - 110%
7440-66-6	ZINC	1	0.929	0.02		93	90 - 110%

Data Package ID: it1111160-1

ICP Metals

Method SW6010

Calibration Verifications

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Lab ID: CCV12
 QC Type: Continuing Calibration

Run ID: IT111118-2A1

Date Analyzed: 11/18/2011

Time Analyzed: 19:44

Result Units: MG/L

File Name: 111118A.

CASNO	Target Analyte	Spike Added	Result	Reporting Limit	Result Qualifier	% Rec.	Control Limits
7429-90-5	ALUMINUM	50	52.8	0.2		106	90 - 110%
7440-36-0	ANTIMONY	0.5	0.502	0.02		100	90 - 110%
7440-38-2	ARSENIC	0.5	0.510	0.01		102	90 - 110%
7440-39-3	BARIUM	1	1.03	0.1		103	90 - 110%
7440-41-7	BERYLLIUM	0.5	0.477	0.005		95	90 - 110%
7440-43-9	CADMIUM	0.5	0.498	0.005		100	90 - 110%
7440-70-2	CALCIUM	50	47.8	1		96	90 - 110%
7440-47-3	CHROMIUM	1	0.966	0.01		97	90 - 110%
7440-48-4	COBALT	0.5	0.481	0.01		96	90 - 110%
7440-50-8	COPPER	1	1.05	0.01		105	90 - 110%
7439-89-6	IRON	20	19.8	0.1		99	90 - 110%
7439-92-1	LEAD	1	0.992	0.003		99	90 - 110%
7439-95-4	MAGNESIUM	50	50.4	1		101	90 - 110%
7439-96-5	MANGANESE	1	0.967	0.01		97	90 - 110%
7439-98-7	MOLYBDENUM	1	0.980	0.01		98	90 - 110%
7440-02-0	NICKEL	1	0.980	0.02		98	90 - 110%
7440-09-7	POTASSIUM	50	49.3	1		99	90 - 110%
7782-49-2	SELENIUM	1	1.04	0.005		104	90 - 110%
7440-22-4	SILVER	0.2	0.198	0.01		99	90 - 110%
7440-23-5	SODIUM	50	49.2	1		98	90 - 110%
7440-28-0	THALLIUM	0.5	0.527	0.01		105	90 - 110%
7440-31-5	TIN	1	1.05	0.05		105	90 - 110%
7440-61-1	URANIUM	5	4.98	0.2		100	90 - 110%
7440-62-2	VANADIUM	0.5	0.483	0.01		97	90 - 110%
7440-66-6	ZINC	1	0.944	0.02		94	90 - 110%

Data Package ID: *it1111160-1*

ICP Metals

Method SW6010

Calibration Verifications

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Lab ID: CCV13
 QC Type: Continuing Calibration

Run ID: IT111118-2A1

Date Analyzed: 11/18/2011

Time Analyzed: 20:08

Result Units: MG/L

File Name: 111118A.

CASNO	Target Analyte	Spike Added	Result	Reporting Limit	Result Qualifier	% Rec.	Control Limits
7429-90-5	ALUMINUM	50	52.7	0.2		105	90 - 110%
7440-36-0	ANTIMONY	0.5	0.499	0.02		100	90 - 110%
7440-38-2	ARSENIC	0.5	0.514	0.01		103	90 - 110%
7440-39-3	BARIUM	1	1.02	0.1		102	90 - 110%
7440-41-7	BERYLLIUM	0.5	0.479	0.005		96	90 - 110%
7440-43-9	CADMIUM	0.5	0.503	0.005		101	90 - 110%
7440-70-2	CALCIUM	50	48.3	1		97	90 - 110%
7440-47-3	CHROMIUM	1	0.973	0.01		97	90 - 110%
7440-48-4	COBALT	0.5	0.483	0.01		97	90 - 110%
7440-50-8	COPPER	1	1.04	0.01		104	90 - 110%
7439-89-6	IRON	20	19.9	0.1		99	90 - 110%
7439-92-1	LEAD	1	0.993	0.003		99	90 - 110%
7439-95-4	MAGNESIUM	50	50.4	1		101	90 - 110%
7439-96-5	MANGANESE	1	0.971	0.01		97	90 - 110%
7439-98-7	MOLYBDENUM	1	0.980	0.01		98	90 - 110%
7440-02-0	NICKEL	1	0.991	0.02		99	90 - 110%
7440-09-7	POTASSIUM	50	48.9	1		98	90 - 110%
7782-49-2	SELENIUM	1	1.03	0.005		103	90 - 110%
7440-22-4	SILVER	0.2	0.199	0.01		99	90 - 110%
7440-23-5	SODIUM	50	48.9	1		98	90 - 110%
7440-28-0	THALLIUM	0.5	0.533	0.01		107	90 - 110%
7440-31-5	TIN	1	1.06	0.05		106	90 - 110%
7440-61-1	URANIUM	5	4.94	0.2		99	90 - 110%
7440-62-2	VANADIUM	0.5	0.485	0.01		97	90 - 110%
7440-66-6	ZINC	1	0.958	0.02		96	90 - 110%

Data Package ID: *it1111160-1*

ICP Metals

Method SW6010

Calibration Verifications

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Lab ID: CCV14
 QC Type: Continuing Calibration

Run ID: IT111118-2A1

Date Analyzed: 11/18/2011

Time Analyzed: 20:31

Result Units: MG/L

File Name: 111118A.

CASNO	Target Analyte	Spike Added	Result	Reporting Limit	Result Qualifier	% Rec.	Control Limits
7429-90-5	ALUMINUM	50	52.4	0.2		105	90 - 110%
7440-36-0	ANTIMONY	0.5	0.495	0.02		99	90 - 110%
7440-38-2	ARSENIC	0.5	0.513	0.01		103	90 - 110%
7440-39-3	BARIUM	1	1.02	0.1		102	90 - 110%
7440-41-7	BERYLLIUM	0.5	0.476	0.005		95	90 - 110%
7440-43-9	CADMIUM	0.5	0.498	0.005		100	90 - 110%
7440-70-2	CALCIUM	50	48.0	1		96	90 - 110%
7440-47-3	CHROMIUM	1	0.966	0.01		97	90 - 110%
7440-48-4	COBALT	0.5	0.480	0.01		96	90 - 110%
7440-50-8	COPPER	1	1.03	0.01		103	90 - 110%
7439-89-6	IRON	20	19.7	0.1		99	90 - 110%
7439-92-1	LEAD	1	0.991	0.003		99	90 - 110%
7439-95-4	MAGNESIUM	50	50.1	1		100	90 - 110%
7439-96-5	MANGANESE	1	0.965	0.01		96	90 - 110%
7439-98-7	MOLYBDENUM	1	0.977	0.01		98	90 - 110%
7440-02-0	NICKEL	1	0.981	0.02		98	90 - 110%
7440-09-7	POTASSIUM	50	48.6	1		97	90 - 110%
7782-49-2	SELENIUM	1	1.03	0.005		103	90 - 110%
7440-22-4	SILVER	0.2	0.198	0.01		99	90 - 110%
7440-23-5	SODIUM	50	48.7	1		97	90 - 110%
7440-28-0	THALLIUM	0.5	0.532	0.01		106	90 - 110%
7440-31-5	TIN	1	1.05	0.05		105	90 - 110%
7440-61-1	URANIUM	5	4.92	0.2		98	90 - 110%
7440-62-2	VANADIUM	0.5	0.480	0.01		96	90 - 110%
7440-66-6	ZINC	1	0.955	0.02		95	90 - 110%

Data Package ID: *it1111160-1*

ICP Metals

Method SW6010

Calibration Verifications

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Lab ID: CCV15
 QC Type: Continuing Calibration

Run ID: IT111118-2A1
 Date Analyzed: 11/18/2011
 Time Analyzed: 20:55
 Result Units: MG/L

File Name: 111118A.

CASNO	Target Analyte	Spike Added	Result	Reporting Limit	Result Qualifier	% Rec.	Control Limits
7429-90-5	ALUMINUM	50	52.8	0.2		106	90 - 110%
7440-36-0	ANTIMONY	0.5	0.503	0.02		101	90 - 110%
7440-38-2	ARSENIC	0.5	0.512	0.01		102	90 - 110%
7440-39-3	BARIIUM	1	1.03	0.1		103	90 - 110%
7440-41-7	BERYLLIUM	0.5	0.477	0.005		95	90 - 110%
7440-43-9	CADMIUM	0.5	0.504	0.005		101	90 - 110%
7440-70-2	CALCIUM	50	48.1	1		96	90 - 110%
7440-47-3	CHROMIUM	1	0.968	0.01		97	90 - 110%
7440-48-4	COBALT	0.5	0.482	0.01		96	90 - 110%
7440-50-8	COPPER	1	1.05	0.01		105	90 - 110%
7439-89-6	IRON	20	19.8	0.1		99	90 - 110%
7439-92-1	LEAD	1	0.989	0.003		99	90 - 110%
7439-95-4	MAGNESIUM	50	50.3	1		101	90 - 110%
7439-96-5	MANGANESE	1	0.965	0.01		97	90 - 110%
7439-98-7	MOLYBDENUM	1	0.980	0.01		98	90 - 110%
7440-02-0	NICKEL	1	0.992	0.02		99	90 - 110%
7440-09-7	POTASSIUM	50	49.1	1		98	90 - 110%
7782-49-2	SELENIUM	1	1.03	0.005		103	90 - 110%
7440-22-4	SILVER	0.2	0.199	0.01		99	90 - 110%
7440-23-5	SODIUM	50	49.1	1		98	90 - 110%
7440-28-0	THALLIUM	0.5	0.528	0.01		106	90 - 110%
7440-31-5	TIN	1	1.06	0.05		106	90 - 110%
7440-61-1	URANIUM	5	4.94	0.2		99	90 - 110%
7440-62-2	VANADIUM	0.5	0.483	0.01		97	90 - 110%
7440-66-6	ZINC	1	0.946	0.02		95	90 - 110%

Data Package ID: it1111160-1

ICP Metals

Method SW6010

Calibration Verifications

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Lab ID: CCV16
 QC Type: Continuing Calibration

Run ID: IT111118-2A1

Date Analyzed: 11/18/2011

Time Analyzed: 21:18

Result Units: MG/L

File Name: 111118A.

CASNO	Target Analyte	Spike Added	Result	Reporting Limit	Result Qualifier	% Rec.	Control Limits
7429-90-5	ALUMINUM	50	53.0	0.2		106	90 - 110%
7440-36-0	ANTIMONY	0.5	0.497	0.02		99	90 - 110%
7440-38-2	ARSENIC	0.5	0.516	0.01		103	90 - 110%
7440-39-3	BARIIUM	1	1.03	0.1		103	90 - 110%
7440-41-7	BERYLLIUM	0.5	0.475	0.005		95	90 - 110%
7440-43-9	CADMIUM	0.5	0.500	0.005		100	90 - 110%
7440-70-2	CALCIUM	50	48.0	1		96	90 - 110%
7440-47-3	CHROMIUM	1	0.963	0.01		96	90 - 110%
7440-48-4	COBALT	0.5	0.482	0.01		96	90 - 110%
7440-50-8	COPPER	1	1.05	0.01		105	90 - 110%
7439-89-6	IRON	20	19.7	0.1		99	90 - 110%
7439-92-1	LEAD	1	0.990	0.003		99	90 - 110%
7439-95-4	MAGNESIUM	50	50.5	1		101	90 - 110%
7439-96-5	MANGANESE	1	0.962	0.01		96	90 - 110%
7439-98-7	MOLYBDENUM	1	0.979	0.01		98	90 - 110%
7440-02-0	NICKEL	1	0.994	0.02		99	90 - 110%
7440-09-7	POTASSIUM	50	49.3	1		99	90 - 110%
7782-49-2	SELENIUM	1	1.04	0.005		104	90 - 110%
7440-22-4	SILVER	0.2	0.199	0.01		99	90 - 110%
7440-23-5	SODIUM	50	49.3	1		99	90 - 110%
7440-28-0	THALLIUM	0.5	0.532	0.01		106	90 - 110%
7440-31-5	TIN	1	1.05	0.05		105	90 - 110%
7440-61-1	URANIUM	5	4.96	0.2		99	90 - 110%
7440-62-2	VANADIUM	0.5	0.482	0.01		96	90 - 110%
7440-66-6	ZINC	1	0.941	0.02		94	90 - 110%

Data Package ID: *it1111160-1*

ICP Metals

Method SW6010

Calibration Verifications

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Lab ID: CCV17
QC Type: Continuing Calibration

Run ID: IT111118-2A1

Date Analyzed: 11/18/2011

Time Analyzed: 21:41

Result Units: MG/L

File Name: 111118A.

CASNO	Target Analyte	Spike Added	Result	Reporting Limit	Result Qualifier	% Rec.	Control Limits
7429-90-5	ALUMINUM	50	53.0	0.2		106	90 - 110%
7440-36-0	ANTIMONY	0.5	0.503	0.02		101	90 - 110%
7440-38-2	ARSENIC	0.5	0.520	0.01		104	90 - 110%
7440-39-3	BARIUM	1	1.03	0.1		103	90 - 110%
7440-41-7	BERYLLIUM	0.5	0.475	0.005		95	90 - 110%
7440-43-9	CADMIUM	0.5	0.500	0.005		100	90 - 110%
7440-70-2	CALCIUM	50	47.6	1		95	90 - 110%
7440-47-3	CHROMIUM	1	0.961	0.01		96	90 - 110%
7440-48-4	COBALT	0.5	0.481	0.01		96	90 - 110%
7440-50-8	COPPER	1	1.06	0.01		106	90 - 110%
7439-89-6	IRON	20	19.7	0.1		99	90 - 110%
7439-92-1	LEAD	1	0.988	0.003		99	90 - 110%
7439-95-4	MAGNESIUM	50	50.4	1		101	90 - 110%
7439-96-5	MANGANESE	1	0.961	0.01		96	90 - 110%
7439-98-7	MOLYBDENUM	1	0.978	0.01		98	90 - 110%
7440-02-0	NICKEL	1	0.995	0.02		100	90 - 110%
7440-09-7	POTASSIUM	50	49.6	1		99	90 - 110%
7782-49-2	SELENIUM	1	1.04	0.005		104	90 - 110%
7440-22-4	SILVER	0.2	0.198	0.01		99	90 - 110%
7440-23-5	SODIUM	50	49.3	1		99	90 - 110%
7440-28-0	THALLIUM	0.5	0.533	0.01		107	90 - 110%
7440-31-5	TIN	1	1.05	0.05		105	90 - 110%
7440-61-1	URANIUM	5	4.99	0.2		100	90 - 110%
7440-62-2	VANADIUM	0.5	0.483	0.01		97	90 - 110%
7440-66-6	ZINC	1	0.936	0.02		94	90 - 110%

Data Package ID: *it1111160-1*

ICP Metals

Method SW6010

Calibration Verifications

Lab Name: ALS Environmental – FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Lab ID: CCV18
 QC Type: Continuing Calibration

Run ID: IT111118-2A1

Date Analyzed: 11/18/2011

Time Analyzed: 22:06

Result Units: MG/L

File Name: 111118A.

CASNO	Target Analyte	Spike Added	Result	Reporting Limit	Result Qualifier	% Rec.	Control Limits
7429-90-5	ALUMINUM	50	53.0	0.2		106	90 - 110%
7440-36-0	ANTIMONY	0.5	0.506	0.02		101	90 - 110%
7440-38-2	ARSENIC	0.5	0.516	0.01		103	90 - 110%
7440-39-3	BARIUM	1	1.03	0.1		103	90 - 110%
7440-41-7	BERYLLIUM	0.5	0.472	0.005		94	90 - 110%
7440-43-9	CADMIUM	0.5	0.500	0.005		100	90 - 110%
7440-70-2	CALCIUM	50	47.5	1		95	90 - 110%
7440-47-3	CHROMIUM	1	0.958	0.01		96	90 - 110%
7440-48-4	COBALT	0.5	0.480	0.01		96	90 - 110%
7440-50-8	COPPER	1	1.06	0.01		106	90 - 110%
7439-89-6	IRON	20	19.6	0.1		98	90 - 110%
7439-92-1	LEAD	1	0.986	0.003		99	90 - 110%
7439-95-4	MAGNESIUM	50	50.2	1		100	90 - 110%
7439-96-5	MANGANESE	1	0.956	0.01		96	90 - 110%
7439-98-7	MOLYBDENUM	1	0.974	0.01		97	90 - 110%
7440-02-0	NICKEL	1	0.994	0.02		99	90 - 110%
7440-09-7	POTASSIUM	50	49.6	1		99	90 - 110%
7782-49-2	SELENIUM	1	1.04	0.005		104	90 - 110%
7440-22-4	SILVER	0.2	0.198	0.01		99	90 - 110%
7440-23-5	SODIUM	50	49.4	1		99	90 - 110%
7440-28-0	THALLIUM	0.5	0.530	0.01		106	90 - 110%
7440-31-5	TIN	1	1.05	0.05		105	90 - 110%
7440-61-1	URANIUM	5	4.98	0.2		100	90 - 110%
7440-62-2	VANADIUM	0.5	0.481	0.01		96	90 - 110%
7440-66-6	ZINC	1	0.927	0.02		93	90 - 110%

Data Package ID: *it1111160-1*

ICP Metals

Method SW6010

Calibration Verifications

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Lab ID: CCV19
 QC Type: Continuing Calibration

Run ID: IT111118-2A1

Date Analyzed: 11/18/2011

Time Analyzed: 22:25

Result Units: MG/L

File Name: 111118A.

CASNO	Target Analyte	Spike Added	Result	Reporting Limit	Result Qualifier	% Rec.	Control Limits
7429-90-5	ALUMINUM	50	52.8	0.2		106	90 - 110%
7440-36-0	ANTIMONY	0.5	0.499	0.02		100	90 - 110%
7440-38-2	ARSENIC	0.5	0.519	0.01		104	90 - 110%
7440-39-3	BARIUM	1	1.02	0.1		102	90 - 110%
7440-41-7	BERYLLIUM	0.5	0.472	0.005		94	90 - 110%
7440-43-9	CADMIUM	0.5	0.501	0.005		100	90 - 110%
7440-70-2	CALCIUM	50	47.8	1		96	90 - 110%
7440-47-3	CHROMIUM	1	0.960	0.01		96	90 - 110%
7440-48-4	COBALT	0.5	0.479	0.01		96	90 - 110%
7440-50-8	COPPER	1	1.05	0.01		105	90 - 110%
7439-89-6	IRON	20	19.7	0.1		99	90 - 110%
7439-92-1	LEAD	1	0.981	0.003		98	90 - 110%
7439-95-4	MAGNESIUM	50	50.3	1		101	90 - 110%
7439-96-5	MANGANESE	1	0.957	0.01		96	90 - 110%
7439-98-7	MOLYBDENUM	1	0.973	0.01		97	90 - 110%
7440-02-0	NICKEL	1	0.993	0.02		99	90 - 110%
7440-09-7	POTASSIUM	50	49.2	1		98	90 - 110%
7782-49-2	SELENIUM	1	1.03	0.005		103	90 - 110%
7440-22-4	SILVER	0.2	0.198	0.01		99	90 - 110%
7440-23-5	SODIUM	50	49.2	1		98	90 - 110%
7440-28-0	THALLIUM	0.5	0.530	0.01		106	90 - 110%
7440-31-5	TIN	1	1.05	0.05		105	90 - 110%
7440-61-1	URANIUM	5	4.93	0.2		99	90 - 110%
7440-62-2	VANADIUM	0.5	0.480	0.01		96	90 - 110%
7440-66-6	ZINC	1	0.934	0.02		93	90 - 110%

Data Package ID: *it1111160-1*

ICP Metals

Method SW6010

Calibration Blanks

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Lab ID: ICB
QC Type: Initial Calibration

Run ID: IT111117-2A1
Date Analyzed: 11/17/2011
Time Analyzed: 2:32:00 PM
Result Units: MG/L

CASNO	Target Analyte	Result	Reporting Limit	Result Qualifier
7429-90-5	ALUMINUM	0.2	0.2	U
7440-36-0	ANTIMONY	0.02	0.02	U
7440-38-2	ARSENIC	0.01	0.01	U
7440-39-3	BARIUM	0.1	0.1	U
7440-41-7	BERYLLIUM	0.005	0.005	U
7440-43-9	CADMIUM	0.005	0.005	U
7440-70-2	CALCIUM	1	1	U
7440-47-3	CHROMIUM	0.01	0.01	U
7440-48-4	COBALT	0.01	0.01	U
7440-50-8	COPPER	0.01	0.01	U
7439-89-6	IRON	0.1	0.1	U
7439-92-1	LEAD	0.003	0.003	U
7439-95-4	MAGNESIUM	1	1	U
7439-96-5	MANGANESE	0.01	0.01	U
7439-98-7	MOLYBDENUM	0.01	0.01	U
7440-02-0	NICKEL	0.02	0.02	U
7440-09-7	POTASSIUM	1	1	U
7782-49-2	SELENIUM	0.005	0.005	U
7440-22-4	SILVER	0.01	0.01	U
7440-23-5	SODIUM	1	1	U
7440-28-0	THALLIUM	0.01	0.01	U
7440-31-5	TIN	0.05	0.05	U
7440-61-1	URANIUM	0.2	0.2	U
7440-62-2	VANADIUM	0.01	0.01	U
7440-66-6	ZINC	0.02	0.02	U

Data Package ID: #1111160-1

ICP Metals

Method SW6010

Calibration Blanks

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Lab ID: CCB1
 QC Type: Continuing Calibration

Run ID: IT111117-2A1
 Date Analyzed: 11/17/2011
 Time Analyzed: 2:48:00 PM
 Result Units: MG/L

CASNO	Target Analyte	Result	Reporting Limit	Result Qualifier
7429-90-5	ALUMINUM	0.2	0.2	U
7440-36-0	ANTIMONY	0.02	0.02	U
7440-38-2	ARSENIC	0.01	0.01	U
7440-39-3	BARIUM	0.1	0.1	U
7440-41-7	BERYLLIUM	0.005	0.005	U
7440-43-9	CADMIUM	0.005	0.005	U
7440-70-2	CALCIUM	1	1	U
7440-47-3	CHROMIUM	0.01	0.01	U
7440-48-4	COBALT	0.01	0.01	U
7440-50-8	COPPER	0.01	0.01	U
7439-89-6	IRON	0.1	0.1	U
7439-92-1	LEAD	0.003	0.003	U
7439-95-4	MAGNESIUM	1	1	U
7439-96-5	MANGANESE	0.01	0.01	U
7439-98-7	MOLYBDENUM	0.01	0.01	U
7440-02-0	NICKEL	0.02	0.02	U
7440-09-7	POTASSIUM	1	1	U
7782-49-2	SELENIUM	0.005	0.005	U
7440-22-4	SILVER	0.01	0.01	U
7440-23-5	SODIUM	1	1	U
7440-28-0	THALLIUM	0.01	0.01	U
7440-31-5	TIN	0.05	0.05	U
7440-61-1	URANIUM	0.2	0.2	U
7440-62-2	VANADIUM	0.01	0.01	U
7440-66-6	ZINC	0.02	0.02	U

Data Package ID: *it1111160-1*

ICP Metals

Method SW6010

Calibration Blanks

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Lab ID: CCB2
 QC Type: Continuing Calibration

Run ID: IT111117-2A1
 Date Analyzed: 11/17/2011
 Time Analyzed: 3:10:00 PM
 Result Units: MG/L

CASNO	Target Analyte	Result	Reporting Limit	Result Qualifier
7429-90-5	ALUMINUM	0.2	0.2	U
7440-36-0	ANTIMONY	0.02	0.02	U
7440-38-2	ARSENIC	0.01	0.01	U
7440-39-3	BARIUM	0.1	0.1	U
7440-41-7	BERYLLIUM	0.005	0.005	U
7440-43-9	CADMIUM	0.005	0.005	U
7440-70-2	CALCIUM	1	1	U
7440-47-3	CHROMIUM	0.01	0.01	U
7440-48-4	COBALT	0.01	0.01	U
7440-50-8	COPPER	0.01	0.01	U
7439-89-6	IRON	0.1	0.1	U
7439-92-1	LEAD	0.003	0.003	U
7439-95-4	MAGNESIUM	1	1	U
7439-96-5	MANGANESE	0.01	0.01	U
7439-98-7	MOLYBDENUM	0.01	0.01	U
7440-02-0	NICKEL	0.02	0.02	U
7440-09-7	POTASSIUM	1	1	U
7782-49-2	SELENIUM	0.005	0.005	U
7440-22-4	SILVER	0.01	0.01	U
7440-23-5	SODIUM	1	1	U
7440-28-0	THALLIUM	0.01	0.01	U
7440-31-5	TIN	0.05	0.05	U
7440-61-1	URANIUM	0.2	0.2	U
7440-62-2	VANADIUM	0.01	0.01	U
7440-66-6	ZINC	0.02	0.02	U

Data Package ID: *it1111160-1*

ICP Metals

Method SW6010

Calibration Blanks

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Lab ID: CCB3
QC Type: Continuing Calibration

Run ID: IT111117-2A1
Date Analyzed: 11/17/2011
Time Analyzed: 3:20:00 PM
Result Units: MG/L

CASNO	Target Analyte	Result	Reporting Limit	Result Qualifier
7429-90-5	ALUMINUM	0.2	0.2	U
7440-36-0	ANTIMONY	0.02	0.02	U
7440-38-2	ARSENIC	0.01	0.01	U
7440-39-3	BARIUM	0.1	0.1	U
7440-41-7	BERYLLIUM	0.005	0.005	U
7440-43-9	CADMIUM	0.005	0.005	U
7440-70-2	CALCIUM	1	1	U
7440-47-3	CHROMIUM	0.01	0.01	U
7440-48-4	COBALT	0.01	0.01	U
7440-50-8	COPPER	0.01	0.01	U
7439-89-6	IRON	0.1	0.1	U
7439-92-1	LEAD	0.003	0.003	U
7439-95-4	MAGNESIUM	1	1	U
7439-96-5	MANGANESE	0.01	0.01	U
7439-98-7	MOLYBDENUM	0.01	0.01	U
7440-02-0	NICKEL	0.02	0.02	U
7440-09-7	POTASSIUM	1	1	U
7782-49-2	SELENIUM	0.005	0.005	U
7440-22-4	SILVER	0.01	0.01	U
7440-23-5	SODIUM	1	1	U
7440-28-0	THALLIUM	0.01	0.01	U
7440-31-5	TIN	0.05	0.05	U
7440-61-1	URANIUM	0.2	0.2	U
7440-62-2	VANADIUM	0.01	0.01	U
7440-66-6	ZINC	0.02	0.02	U

Data Package ID: #1111160-1

ICP Metals

Method SW6010

Calibration Blanks

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Lab ID: CCB4
 QC Type: Continuing Calibration

Run ID: IT111117-2A1
 Date Analyzed: 11/17/2011
 Time Analyzed: 3:42:00 PM
 Result Units: MG/L

CASNO	Target Analyte	Result	Reporting Limit	Result Qualifier
7429-90-5	ALUMINUM	0.2	0.2	U
7440-36-0	ANTIMONY	0.02	0.02	U
7440-38-2	ARSENIC	0.01	0.01	U
7440-39-3	BARIUM	0.1	0.1	U
7440-41-7	BERYLLIUM	0.005	0.005	U
7440-43-9	CADMIUM	0.005	0.005	U
7440-70-2	CALCIUM	1	1	U
7440-47-3	CHROMIUM	0.01	0.01	U
7440-48-4	COBALT	0.01	0.01	U
7440-50-8	COPPER	0.01	0.01	U
7439-89-6	IRON	0.1	0.1	U
7439-92-1	LEAD	0.003	0.003	U
7439-95-4	MAGNESIUM	1	1	U
7439-96-5	MANGANESE	0.01	0.01	U
7439-98-7	MOLYBDENUM	0.01	0.01	U
7440-02-0	NICKEL	0.02	0.02	U
7440-09-7	POTASSIUM	1	1	U
7782-49-2	SELENIUM	0.005	0.005	U
7440-22-4	SILVER	0.01	0.01	U
7440-23-5	SODIUM	1	1	U
7440-28-0	THALLIUM	0.01	0.01	U
7440-31-5	TIN	0.05	0.05	U
7440-61-1	URANIUM	0.2	0.2	U
7440-62-2	VANADIUM	0.01	0.01	U
7440-66-6	ZINC	0.02	0.02	U

Data Package ID: *it1111160-1*

ICP Metals
Method SW6010
Calibration Blanks

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Lab ID: CCB5
QC Type: Continuing Calibration

Run ID: IT111117-2A1
Date Analyzed: 11/17/2011
Time Analyzed: 4:05:00 PM
Result Units: MG/L

CASNO	Target Analyte	Result	Reporting Limit	Result Qualifier
7429-90-5	ALUMINUM	0.2	0.2	U
7440-36-0	ANTIMONY	0.02	0.02	U
7440-38-2	ARSENIC	0.01	0.01	U
7440-39-3	BARIUM	0.1	0.1	U
7440-41-7	BERYLLIUM	0.005	0.005	U
7440-43-9	CADMIUM	0.005	0.005	U
7440-70-2	CALCIUM	1	1	U
7440-47-3	CHROMIUM	0.01	0.01	U
7440-48-4	COBALT	0.01	0.01	U
7440-50-8	COPPER	0.01	0.01	U
7439-89-6	IRON	0.1	0.1	U
7439-92-1	LEAD	0.003	0.003	U
7439-95-4	MAGNESIUM	1	1	U
7439-96-5	MANGANESE	0.01	0.01	U
7439-98-7	MOLYBDENUM	0.01	0.01	U
7440-02-0	NICKEL	0.02	0.02	U
7440-09-7	POTASSIUM	1	1	U
7782-49-2	SELENIUM	0.005	0.005	U
7440-22-4	SILVER	0.01	0.01	U
7440-23-5	SODIUM	1	1	U
7440-28-0	THALLIUM	0.01	0.01	U
7440-31-5	TIN	0.05	0.05	U
7440-61-1	URANIUM	0.2	0.2	U
7440-62-2	VANADIUM	0.01	0.01	U
7440-66-6	ZINC	0.02	0.02	U

Data Package ID: #1111160-1

ICP Metals

Method SW6010

Calibration Blanks

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Lab ID: CCB6
 QC Type: Continuing Calibration

Run ID: IT111117-2A1
 Date Analyzed: 11/17/2011
 Time Analyzed: 4:35:00 PM
 Result Units: MG/L

CASNO	Target Analyte	Result	Reporting Limit	Result Qualifier
7429-90-5	ALUMINUM	0.2	0.2	U
7440-36-0	ANTIMONY	0.02	0.02	U
7440-38-2	ARSENIC	0.01	0.01	U
7440-39-3	BARIUM	0.1	0.1	U
7440-41-7	BERYLLIUM	0.005	0.005	U
7440-43-9	CADMIUM	0.005	0.005	U
7440-70-2	CALCIUM	1	1	U
7440-47-3	CHROMIUM	0.01	0.01	U
7440-48-4	COBALT	0.01	0.01	U
7440-50-8	COPPER	0.01	0.01	U
7439-89-6	IRON	0.1	0.1	U
7439-92-1	LEAD	0.003	0.003	U
7439-95-4	MAGNESIUM	1	1	U
7439-96-5	MANGANESE	0.01	0.01	U
7439-98-7	MOLYBDENUM	0.01	0.01	U
7440-02-0	NICKEL	0.02	0.02	U
7440-09-7	POTASSIUM	1	1	U
7782-49-2	SELENIUM	0.005	0.005	U
7440-22-4	SILVER	0.01	0.01	U
7440-23-5	SODIUM	1	1	U
7440-28-0	THALLIUM	0.01	0.01	U
7440-31-5	TIN	0.05	0.05	U
7440-61-1	URANIUM	0.2	0.2	U
7440-62-2	VANADIUM	0.01	0.01	U
7440-66-6	ZINC	0.02	0.02	U

Data Package ID: *it1111160-1*

ICP Metals

Method SW6010

Calibration Blanks

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Lab ID: CCB7
QC Type: Continuing Calibration

Run ID: IT111117-2A1
Date Analyzed: 11/17/2011
Time Analyzed: 4:57:00 PM
Result Units: MG/L

CASNO	Target Analyte	Result	Reporting Limit	Result Qualifier
7429-90-5	ALUMINUM	0.2	0.2	U
7440-36-0	ANTIMONY	0.02	0.02	U
7440-38-2	ARSENIC	0.01	0.01	U
7440-39-3	BARIUM	0.1	0.1	U
7440-41-7	BERYLLIUM	0.005	0.005	U
7440-43-9	CADMIUM	0.005	0.005	U
7440-70-2	CALCIUM	1	1	U
7440-47-3	CHROMIUM	0.01	0.01	U
7440-48-4	COBALT	0.01	0.01	U
7440-50-8	COPPER	0.01	0.01	U
7439-89-6	IRON	0.1	0.1	U
7439-92-1	LEAD	0.003	0.003	U
7439-95-4	MAGNESIUM	1	1	U
7439-96-5	MANGANESE	0.01	0.01	U
7439-98-7	MOLYBDENUM	0.01	0.01	U
7440-02-0	NICKEL	0.02	0.02	U
7440-09-7	POTASSIUM	1	1	U
7782-49-2	SELENIUM	0.005	0.005	U
7440-22-4	SILVER	0.01	0.01	U
7440-23-5	SODIUM	1	1	U
7440-28-0	THALLIUM	0.01	0.01	U
7440-31-5	TIN	0.05	0.05	U
7440-61-1	URANIUM	0.2	0.2	U
7440-62-2	VANADIUM	0.01	0.01	U
7440-66-6	ZINC	0.02	0.02	U

Data Package ID: #1111160-1

ICP Metals
Method SW6010
Calibration Blanks

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Lab ID: CCB8
QC Type: Continuing Calibration

Run ID: IT111117-2A1
Date Analyzed: 11/17/2011
Time Analyzed: 5:21:00 PM
Result Units: MG/L

CASNO	Target Analyte	Result	Reporting Limit	Result Qualifier
7429-90-5	ALUMINUM	0.2	0.2	U
7440-36-0	ANTIMONY	0.02	0.02	U
7440-38-2	ARSENIC	0.01	0.01	U
7440-39-3	BARIUM	0.1	0.1	U
7440-41-7	BERYLLIUM	0.005	0.005	U
7440-43-9	CADMIUM	0.005	0.005	U
7440-70-2	CALCIUM	1	1	U
7440-47-3	CHROMIUM	0.01	0.01	U
7440-48-4	COBALT	0.01	0.01	U
7440-50-8	COPPER	0.01	0.01	U
7439-89-6	IRON	0.1	0.1	U
7439-92-1	LEAD	0.003	0.003	U
7439-95-4	MAGNESIUM	1	1	U
7439-96-5	MANGANESE	0.01	0.01	U
7439-98-7	MOLYBDENUM	0.01	0.01	U
7440-02-0	NICKEL	0.02	0.02	U
7440-09-7	POTASSIUM	1	1	U
7782-49-2	SELENIUM	0.005	0.005	U
7440-22-4	SILVER	0.01	0.01	U
7440-23-5	SODIUM	1	1	U
7440-28-0	THALLIUM	0.01	0.01	U
7440-31-5	TIN	0.05	0.05	U
7440-61-1	URANIUM	0.2	0.2	U
7440-62-2	VANADIUM	0.01	0.01	U
7440-66-6	ZINC	0.02	0.02	U

Data Package ID: #1111160-1

ICP Metals

Method SW6010

Calibration Blanks

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Lab ID: CCB9
 QC Type: Continuing Calibration

Run ID: IT111117-2A1
 Date Analyzed: 11/17/2011
 Time Analyzed: 5:46:00 PM
 Result Units: MG/L

CASNO	Target Analyte	Result	Reporting Limit	Result Qualifier
7429-90-5	ALUMINUM	0.2	0.2	U
7440-36-0	ANTIMONY	0.02	0.02	U
7440-38-2	ARSENIC	0.01	0.01	U
7440-39-3	BARIUM	0.1	0.1	U
7440-41-7	BERYLLIUM	0.005	0.005	U
7440-43-9	CADMIUM	0.005	0.005	U
7440-70-2	CALCIUM	1	1	U
7440-47-3	CHROMIUM	0.01	0.01	U
7440-48-4	COBALT	0.01	0.01	U
7440-50-8	COPPER	0.01	0.01	U
7439-89-6	IRON	0.1	0.1	U
7439-92-1	LEAD	0.003	0.003	U
7439-95-4	MAGNESIUM	1	1	U
7439-96-5	MANGANESE	0.01	0.01	U
7439-98-7	MOLYBDENUM	0.01	0.01	U
7440-02-0	NICKEL	0.02	0.02	U
7440-09-7	POTASSIUM	1	1	U
7782-49-2	SELENIUM	0.005	0.005	U
7440-22-4	SILVER	0.01	0.01	U
7440-23-5	SODIUM	1	1	U
7440-28-0	THALLIUM	0.01	0.01	U
7440-31-5	TIN	0.05	0.05	U
7440-61-1	URANIUM	0.2	0.2	U
7440-62-2	VANADIUM	0.01	0.01	U
7440-66-6	ZINC	0.02	0.02	U

Data Package ID: *it1111160-1*

ICP Metals

Method SW6010

Calibration Blanks

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Lab ID: ICB
QC Type: Initial Calibration

Run ID: IT111118-2A1
Date Analyzed: 11/18/2011
Time Analyzed: 2:49:00 PM
Result Units: MG/L

CASNO	Target Analyte	Result	Reporting Limit	Result Qualifier
7429-90-5	ALUMINUM	0.2	0.2	U
7440-36-0	ANTIMONY	0.02	0.02	U
7440-38-2	ARSENIC	0.01	0.01	U
7440-39-3	BARIUM	0.1	0.1	U
7440-41-7	BERYLLIUM	0.005	0.005	U
7440-43-9	CADMIUM	0.005	0.005	U
7440-70-2	CALCIUM	1	1	U
7440-47-3	CHROMIUM	0.01	0.01	U
7440-48-4	COBALT	0.01	0.01	U
7440-50-8	COPPER	0.01	0.01	U
7439-89-6	IRON	0.1	0.1	U
7439-92-1	LEAD	0.003	0.003	U
7439-95-4	MAGNESIUM	1	1	U
7439-96-5	MANGANESE	0.01	0.01	U
7439-98-7	MOLYBDENUM	0.01	0.01	U
7440-02-0	NICKEL	0.02	0.02	U
7440-09-7	POTASSIUM	1	1	U
7782-49-2	SELENIUM	0.005	0.005	U
7440-22-4	SILVER	0.01	0.01	U
7440-23-5	SODIUM	1	1	U
7440-28-0	THALLIUM	0.01	0.01	U
7440-31-5	TIN	0.05	0.05	U
7440-61-1	URANIUM	0.2	0.2	U
7440-62-2	VANADIUM	0.01	0.01	U
7440-66-6	ZINC	0.02	0.02	U

Data Package ID: *it1111160-1*

ICP Metals

Method SW6010

Calibration Blanks

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Lab ID: CCB1
QC Type: Continuing Calibration

Run ID: IT111118-2A1
Date Analyzed: 11/18/2011
Time Analyzed: 3:02:00 PM
Result Units: MG/L

CASNO	Target Analyte	Result	Reporting Limit	Result Qualifier
7429-90-5	ALUMINUM	0.2	0.2	U
7440-36-0	ANTIMONY	0.02	0.02	U
7440-38-2	ARSENIC	0.01	0.01	U
7440-39-3	BARIUM	0.1	0.1	U
7440-41-7	BERYLLIUM	0.005	0.005	U
7440-43-9	CADMIUM	0.005	0.005	U
7440-70-2	CALCIUM	1	1	U
7440-47-3	CHROMIUM	0.01	0.01	U
7440-48-4	COBALT	0.01	0.01	U
7440-50-8	COPPER	0.01	0.01	U
7439-89-6	IRON	0.1	0.1	U
7439-92-1	LEAD	0.003	0.003	U
7439-95-4	MAGNESIUM	1	1	U
7439-96-5	MANGANESE	0.01	0.01	U
7439-98-7	MOLYBDENUM	0.01	0.01	U
7440-02-0	NICKEL	0.02	0.02	U
7440-09-7	POTASSIUM	1	1	U
7782-49-2	SELENIUM	0.005	0.005	U
7440-22-4	SILVER	0.01	0.01	U
7440-23-5	SODIUM	1	1	U
7440-28-0	THALLIUM	0.01	0.01	U
7440-31-5	TIN	0.05	0.05	U
7440-61-1	URANIUM	0.2	0.2	U
7440-62-2	VANADIUM	0.01	0.01	U
7440-66-6	ZINC	0.02	0.02	U

Data Package ID: *it1111160-1*

ICP Metals

Method SW6010

Calibration Blanks

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Lab ID: CCB2
 QC Type: Continuing Calibration

Run ID: IT111118-2A1
 Date Analyzed: 11/18/2011
 Time Analyzed: 3:25:00 PM
 Result Units: MG/L

CASNO	Target Analyte	Result	Reporting Limit	Result Qualifier
7429-90-5	ALUMINUM	0.2	0.2	U
7440-36-0	ANTIMONY	0.02	0.02	U
7440-38-2	ARSENIC	0.01	0.01	U
7440-39-3	BARIUM	0.1	0.1	U
7440-41-7	BERYLLIUM	0.005	0.005	U
7440-43-9	CADMIUM	0.005	0.005	U
7440-70-2	CALCIUM	1	1	U
7440-47-3	CHROMIUM	0.01	0.01	U
7440-48-4	COBALT	0.01	0.01	U
7440-50-8	COPPER	0.01	0.01	U
7439-89-6	IRON	0.1	0.1	U
7439-92-1	LEAD	0.003	0.003	U
7439-95-4	MAGNESIUM	1	1	U
7439-96-5	MANGANESE	0.01	0.01	U
7439-98-7	MOLYBDENUM	0.01	0.01	U
7440-02-0	NICKEL	0.02	0.02	U
7440-09-7	POTASSIUM	1	1	U
7782-49-2	SELENIUM	0.005	0.005	U
7440-22-4	SILVER	0.01	0.01	U
7440-23-5	SODIUM	1	1	U
7440-28-0	THALLIUM	0.01	0.01	U
7440-31-5	TIN	0.05	0.05	U
7440-61-1	URANIUM	0.2	0.2	U
7440-62-2	VANADIUM	0.01	0.01	U
7440-66-6	ZINC	0.02	0.02	U

Data Package ID: *1111160-1*

ICP Metals

Method SW6010

Calibration Blanks

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Lab ID: CCB3
 QC Type: Continuing Calibration

Run ID: IT111118-2A1
 Date Analyzed: 11/18/2011
 Time Analyzed: 3:50:00 PM
 Result Units: MG/L

CASNO	Target Analyte	Result	Reporting Limit	Result Qualifier
7429-90-5	ALUMINUM	0.2	0.2	U
7440-36-0	ANTIMONY	0.02	0.02	U
7440-38-2	ARSENIC	0.01	0.01	U
7440-39-3	BARIUM	0.1	0.1	U
7440-41-7	BERYLLIUM	0.005	0.005	U
7440-43-9	CADMIUM	0.005	0.005	U
7440-70-2	CALCIUM	1	1	U
7440-47-3	CHROMIUM	0.01	0.01	U
7440-48-4	COBALT	0.01	0.01	U
7440-50-8	COPPER	0.01	0.01	U
7439-89-6	IRON	0.1	0.1	U
7439-92-1	LEAD	0.003	0.003	U
7439-95-4	MAGNESIUM	1	1	U
7439-96-5	MANGANESE	0.01	0.01	U
7439-98-7	MOLYBDENUM	0.01	0.01	U
7440-02-0	NICKEL	0.02	0.02	U
7440-09-7	POTASSIUM	1	1	U
7782-49-2	SELENIUM	0.005	0.005	U
7440-22-4	SILVER	0.01	0.01	U
7440-23-5	SODIUM	1	1	U
7440-28-0	THALLIUM	0.01	0.01	U
7440-31-5	TIN	0.05	0.05	U
7440-61-1	URANIUM	0.2	0.2	U
7440-62-2	VANADIUM	0.01	0.01	U
7440-66-6	ZINC	0.02	0.02	U

Data Package ID: *it1111160-1*

ICP Metals

Method SW6010

Calibration Blanks

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Lab ID: CCB4
 QC Type: Continuing Calibration

Run ID: IT111118-2A1
 Date Analyzed: 11/18/2011
 Time Analyzed: 4:19:00 PM
 Result Units: MG/L

CASNO	Target Analyte	Result	Reporting Limit	Result Qualifier
7429-90-5	ALUMINUM	0.2	0.2	U
7440-36-0	ANTIMONY	0.02	0.02	U
7440-38-2	ARSENIC	0.01	0.01	U
7440-39-3	BARIUM	0.1	0.1	U
7440-41-7	BERYLLIUM	0.005	0.005	U
7440-43-9	CADMIUM	0.005	0.005	U
7440-70-2	CALCIUM	1	1	U
7440-47-3	CHROMIUM	0.01	0.01	U
7440-48-4	COBALT	0.01	0.01	U
7440-50-8	COPPER	0.01	0.01	U
7439-89-6	IRON	0.1	0.1	U
7439-92-1	LEAD	0.003	0.003	U
7439-95-4	MAGNESIUM	1	1	U
7439-96-5	MANGANESE	0.01	0.01	U
7439-98-7	MOLYBDENUM	0.01	0.01	U
7440-02-0	NICKEL	0.02	0.02	U
7440-09-7	POTASSIUM	1	1	U
7782-49-2	SELENIUM	0.005	0.005	U
7440-22-4	SILVER	0.01	0.01	U
7440-23-5	SODIUM	1	1	U
7440-28-0	THALLIUM	0.01	0.01	U
7440-31-5	TIN	0.05	0.05	U
7440-61-1	URANIUM	0.2	0.2	U
7440-62-2	VANADIUM	0.01	0.01	U
7440-66-6	ZINC	0.02	0.02	U

Data Package ID: #1111160-1

ICP Metals

Method SW6010

Calibration Blanks

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Lab ID: CCB5
 QC Type: Continuing Calibration

Run ID: IT111118-2A1
 Date Analyzed: 11/18/2011
 Time Analyzed: 4:46:00 PM
 Result Units: MG/L

CASNO	Target Analyte	Result	Reporting Limit	Result Qualifier
7429-90-5	ALUMINUM	0.2	0.2	U
7440-36-0	ANTIMONY	0.02	0.02	U
7440-38-2	ARSENIC	0.01	0.01	U
7440-39-3	BARIUM	0.1	0.1	U
7440-41-7	BERYLLIUM	0.005	0.005	U
7440-43-9	CADMIUM	0.005	0.005	U
7440-70-2	CALCIUM	1	1	U
7440-47-3	CHROMIUM	0.01	0.01	U
7440-48-4	COBALT	0.01	0.01	U
7440-50-8	COPPER	0.01	0.01	U
7439-89-6	IRON	0.1	0.1	U
7439-92-1	LEAD	0.003	0.003	U
7439-95-4	MAGNESIUM	1	1	U
7439-96-5	MANGANESE	0.01	0.01	U
7439-98-7	MOLYBDENUM	0.01	0.01	U
7440-02-0	NICKEL	0.02	0.02	U
7440-09-7	POTASSIUM	1	1	U
7782-49-2	SELENIUM	0.005	0.005	U
7440-22-4	SILVER	0.01	0.01	U
7440-23-5	SODIUM	1	1	U
7440-28-0	THALLIUM	0.01	0.01	U
7440-31-5	TIN	0.05	0.05	U
7440-61-1	URANIUM	0.2	0.2	U
7440-62-2	VANADIUM	0.01	0.01	U
7440-66-6	ZINC	0.02	0.02	U

Data Package ID: #1111160-1

ICP Metals

Method SW6010

Calibration Blanks

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Lab ID: CCB6
 QC Type: Continuing Calibration

Run ID: IT111118-2A1
 Date Analyzed: 11/18/2011
 Time Analyzed: 5:09:00 PM
 Result Units: MG/L

CASNO	Target Analyte	Result	Reporting Limit	Result Qualifier
7429-90-5	ALUMINUM	0.2	0.2	U
7440-36-0	ANTIMONY	0.02	0.02	U
7440-38-2	ARSENIC	0.01	0.01	U
7440-39-3	BARIUM	0.1	0.1	U
7440-41-7	BERYLLIUM	0.005	0.005	U
7440-43-9	CADMIUM	0.005	0.005	U
7440-70-2	CALCIUM	1	1	U
7440-47-3	CHROMIUM	0.01	0.01	U
7440-48-4	COBALT	0.01	0.01	U
7440-50-8	COPPER	0.01	0.01	U
7439-89-6	IRON	0.1	0.1	U
7439-92-1	LEAD	0.003	0.003	U
7439-95-4	MAGNESIUM	1	1	U
7439-96-5	MANGANESE	0.01	0.01	U
7439-98-7	MOLYBDENUM	0.01	0.01	U
7440-02-0	NICKEL	0.02	0.02	U
7440-09-7	POTASSIUM	1	1	U
7782-49-2	SELENIUM	0.005	0.005	U
7440-22-4	SILVER	0.01	0.01	U
7440-23-5	SODIUM	1	1	U
7440-28-0	THALLIUM	0.01	0.01	U
7440-31-5	TIN	0.05	0.05	U
7440-61-1	URANIUM	0.2	0.2	U
7440-62-2	VANADIUM	0.01	0.01	U
7440-66-6	ZINC	0.02	0.02	U

Data Package ID: *it1111160-1*

ICP Metals

Method SW6010

Calibration Blanks

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Lab ID: CCB7
 QC Type: Continuing Calibration

Run ID: IT111118-2A1
 Date Analyzed: 11/18/2011
 Time Analyzed: 5:28:00 PM
 Result Units: MG/L

CASNO	Target Analyte	Result	Reporting Limit	Result Qualifier
7429-90-5	ALUMINUM	0.2	0.2	U
7440-36-0	ANTIMONY	0.02	0.02	U
7440-38-2	ARSENIC	0.01	0.01	U
7440-39-3	BARIUM	0.1	0.1	U
7440-41-7	BERYLLIUM	0.005	0.005	U
7440-43-9	CADMIUM	0.005	0.005	U
7440-70-2	CALCIUM	1	1	U
7440-47-3	CHROMIUM	0.01	0.01	U
7440-48-4	COBALT	0.01	0.01	U
7440-50-8	COPPER	0.01	0.01	U
7439-89-6	IRON	0.1	0.1	U
7439-92-1	LEAD	0.003	0.003	U
7439-95-4	MAGNESIUM	1	1	U
7439-96-5	MANGANESE	0.01	0.01	U
7439-98-7	MOLYBDENUM	0.01	0.01	U
7440-02-0	NICKEL	0.02	0.02	U
7440-09-7	POTASSIUM	1	1	U
7782-49-2	SELENIUM	0.005	0.005	U
7440-22-4	SILVER	0.01	0.01	U
7440-23-5	SODIUM	1	1	U
7440-28-0	THALLIUM	0.01	0.01	U
7440-31-5	TIN	0.05	0.05	U
7440-61-1	URANIUM	0.2	0.2	U
7440-62-2	VANADIUM	0.01	0.01	U
7440-66-6	ZINC	0.02	0.02	U

Data Package ID: #1111160-1

ICP Metals

Method SW6010

Calibration Blanks

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Lab ID: CCB8
QC Type: Continuing Calibration

Run ID: IT111118-2A1
Date Analyzed: 11/18/2011
Time Analyzed: 6:10:00 PM
Result Units: MG/L

CASNO	Target Analyte	Result	Reporting Limit	Result Qualifier
7429-90-5	ALUMINUM	0.2	0.2	U
7440-36-0	ANTIMONY	0.02	0.02	U
7440-38-2	ARSENIC	0.01	0.01	U
7440-39-3	BARIUM	0.1	0.1	U
7440-41-7	BERYLLIUM	0.005	0.005	U
7440-43-9	CADMIUM	0.005	0.005	U
7440-70-2	CALCIUM	1	1	U
7440-47-3	CHROMIUM	0.01	0.01	U
7440-48-4	COBALT	0.01	0.01	U
7440-50-8	COPPER	0.01	0.01	U
7439-89-6	IRON	0.1	0.1	U
7439-92-1	LEAD	0.003	0.003	U
7439-95-4	MAGNESIUM	1	1	U
7439-96-5	MANGANESE	0.01	0.01	U
7439-98-7	MOLYBDENUM	0.01	0.01	U
7440-02-0	NICKEL	0.02	0.02	U
7440-09-7	POTASSIUM	1	1	U
7782-49-2	SELENIUM	0.005	0.005	U
7440-22-4	SILVER	0.01	0.01	U
7440-23-5	SODIUM	1	1	U
7440-28-0	THALLIUM	0.01	0.01	U
7440-31-5	TIN	0.05	0.05	U
7440-61-1	URANIUM	0.2	0.2	U
7440-62-2	VANADIUM	0.01	0.01	U
7440-66-6	ZINC	0.02	0.02	U

Data Package ID: *it1111160-1*

ICP Metals

Method SW6010

Calibration Blanks

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Lab ID: CCB9
 QC Type: Continuing Calibration

Run ID: IT111118-2A1
 Date Analyzed: 11/18/2011
 Time Analyzed: 6:36:00 PM
 Result Units: MG/L

CASNO	Target Analyte	Result	Reporting Limit	Result Qualifier
7429-90-5	ALUMNUM	0.2	0.2	U
7440-36-0	ANTIMONY	0.02	0.02	U
7440-38-2	ARSENIC	0.01	0.01	U
7440-39-3	BARIUM	0.1	0.1	U
7440-41-7	BERYLLIUM	0.005	0.005	U
7440-43-9	CADMIUM	0.005	0.005	U
7440-70-2	CALCIUM	1	1	U
7440-47-3	CHROMIUM	0.01	0.01	U
7440-48-4	COBALT	0.01	0.01	U
7440-50-8	COPPER	0.01	0.01	U
7439-89-6	IRON	0.1	0.1	U
7439-92-1	LEAD	0.003	0.003	U
7439-95-4	MAGNESIUM	1	1	U
7439-96-5	MANGANESE	0.01	0.01	U
7439-98-7	MOLYBDENUM	0.01	0.01	U
7440-02-0	NICKEL	0.02	0.02	U
7440-09-7	POTASSIUM	1	1	U
7782-49-2	SELENIUM	0.005	0.005	U
7440-22-4	SILVER	0.01	0.01	U
7440-23-5	SODIUM	1	1	U
7440-28-0	THALLIUM	0.01	0.01	U
7440-31-5	TIN	0.05	0.05	U
7440-61-1	URANIUM	0.2	0.2	U
7440-62-2	VANADIUM	0.01	0.01	U
7440-66-6	ZINC	0.02	0.02	U

Data Package ID: #1111160-1

ICP Metals

Method SW6010

Calibration Blanks

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Lab ID: CCB10

QC Type: Continuing Calibration

Run ID: IT111118-2A1

Date Analyzed: 11/18/2011

Time Analyzed: 6:59:00 PM

Result Units: MG/L

CASNO	Target Analyte	Result	Reporting Limit	Result Qualifier
7429-90-5	ALUMINUM	0.2	0.2	U
7440-36-0	ANTIMONY	0.02	0.02	U
7440-38-2	ARSENIC	0.01	0.01	U
7440-39-3	BARIUM	0.1	0.1	U
7440-41-7	BERYLLIUM	0.005	0.005	U
7440-43-9	CADMIUM	0.005	0.005	U
7440-70-2	CALCIUM	1	1	U
7440-47-3	CHROMIUM	0.01	0.01	U
7440-48-4	COBALT	0.01	0.01	U
7440-50-8	COPPER	0.01	0.01	U
7439-89-6	IRON	0.1	0.1	U
7439-92-1	LEAD	0.003	0.003	U
7439-95-4	MAGNESIUM	1	1	U
7439-96-5	MANGANESE	0.01	0.01	U
7439-98-7	MOLYBDENUM	0.01	0.01	U
7440-02-0	NICKEL	0.02	0.02	U
7440-09-7	POTASSIUM	1	1	U
7782-49-2	SELENIUM	0.005	0.005	U
7440-22-4	SILVER	0.01	0.01	U
7440-23-5	SODIUM	1	1	U
7440-28-0	THALLIUM	0.01	0.01	U
7440-31-5	TIN	0.05	0.05	U
7440-61-1	URANIUM	0.2	0.2	U
7440-62-2	VANADIUM	0.01	0.01	U
7440-66-6	ZINC	0.02	0.02	U

Data Package ID: *it1111160-1*

ICP Metals

Method SW6010

Calibration Blanks

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Lab ID: CCB11
 QC Type: Continuing Calibration

Run ID: IT111118-2A1
 Date Analyzed: 11/18/2011
 Time Analyzed: 7:22:00 PM
 Result Units: MG/L

CASNO	Target Analyte	Result	Reporting Limit	Result Qualifier
7429-90-5	ALUMINUM	0.2	0.2	U
7440-36-0	ANTIMONY	0.02	0.02	U
7440-38-2	ARSENIC	0.01	0.01	U
7440-39-3	BARIUM	0.1	0.1	U
7440-41-7	BERYLLIUM	0.005	0.005	U
7440-43-9	CADMIUM	0.005	0.005	U
7440-70-2	CALCIUM	1	1	U
7440-47-3	CHROMIUM	0.01	0.01	U
7440-48-4	COBALT	0.01	0.01	U
7440-50-8	COPPER	0.01	0.01	U
7439-89-6	IRON	0.1	0.1	U
7439-92-1	LEAD	0.003	0.003	U
7439-95-4	MAGNESIUM	1	1	U
7439-96-5	MANGANESE	0.01	0.01	U
7439-98-7	MOLYBDENUM	0.01	0.01	U
7440-02-0	NICKEL	0.02	0.02	U
7440-09-7	POTASSIUM	1	1	U
7782-49-2	SELENIUM	0.005	0.005	U
7440-22-4	SILVER	0.01	0.01	U
7440-23-5	SODIUM	1	1	U
7440-28-0	THALLIUM	0.01	0.01	U
7440-31-5	TIN	0.05	0.05	U
7440-61-1	URANIUM	0.2	0.2	U
7440-62-2	VANADIUM	0.01	0.01	U
7440-66-6	ZINC	0.02	0.02	U

Data Package ID: #1111160-1

ICP Metals

Method SW6010

Calibration Blanks

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Lab ID: CCB12
QC Type: Continuing Calibration

Run ID: IT111118-2A1
 Date Analyzed: 11/18/2011
 Time Analyzed: 7:46:00 PM
 Result Units: MG/L

CASNO	Target Analyte	Result	Reporting Limit	Result Qualifier
7429-90-5	ALUMINUM	0.2	0.2	U
7440-36-0	ANTIMONY	0.02	0.02	U
7440-38-2	ARSENIC	0.01	0.01	U
7440-39-3	BARIUM	0.1	0.1	U
7440-41-7	BERYLLIUM	0.005	0.005	U
7440-43-9	CADMIUM	0.005	0.005	U
7440-70-2	CALCIUM	1	1	U
7440-47-3	CHROMIUM	0.01	0.01	U
7440-48-4	COBALT	0.01	0.01	U
7440-50-8	COPPER	0.01	0.01	U
7439-89-6	IRON	0.1	0.1	U
7439-92-1	LEAD	0.003	0.003	U
7439-95-4	MAGNESIUM	1	1	U
7439-96-5	MANGANESE	0.01	0.01	U
7439-98-7	MOLYBDENUM	0.01	0.01	U
7440-02-0	NICKEL	0.02	0.02	U
7440-09-7	POTASSIUM	1	1	U
7782-49-2	SELENIUM	0.005	0.005	U
7440-22-4	SILVER	0.01	0.01	U
7440-23-5	SODIUM	1	1	U
7440-28-0	THALLIUM	0.01	0.01	U
7440-31-5	TIN	0.05	0.05	U
7440-61-1	URANIUM	0.2	0.2	U
7440-62-2	VANADIUM	0.01	0.01	U
7440-66-6	ZINC	0.02	0.02	U

Data Package ID: *it1111160-1*

ICP Metals

Method SW6010

Calibration Blanks

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Lab ID: CCB13
 QC Type: Continuing Calibration

Run ID: IT111118-2A1
 Date Analyzed: 11/18/2011
 Time Analyzed: 8:10:00 PM
 Result Units: MG/L

CASNO	Target Analyte	Result	Reporting Limit	Result Qualifier
7429-90-5	ALUMINUM	0.2	0.2	U
7440-36-0	ANTIMONY	0.02	0.02	U
7440-38-2	ARSENIC	0.01	0.01	U
7440-39-3	BARIUM	0.1	0.1	U
7440-41-7	BERYLLIUM	0.005	0.005	U
7440-43-9	CADMIUM	0.005	0.005	U
7440-70-2	CALCIUM	1	1	U
7440-47-3	CHROMIUM	0.01	0.01	U
7440-48-4	COBALT	0.01	0.01	U
7440-50-8	COPPER	0.01	0.01	U
7439-89-6	IRON	0.1	0.1	U
7439-92-1	LEAD	0.003	0.003	U
7439-95-4	MAGNESIUM	1	1	U
7439-96-5	MANGANESE	0.01	0.01	U
7439-98-7	MOLYBDENUM	0.01	0.01	U
7440-02-0	NICKEL	0.02	0.02	U
7440-09-7	POTASSIUM	1	1	U
7782-49-2	SELENIUM	0.005	0.005	U
7440-22-4	SILVER	0.01	0.01	U
7440-23-5	SODIUM	1	1	U
7440-28-0	THALLIUM	0.01	0.01	U
7440-31-5	TIN	0.05	0.05	U
7440-61-1	URANIUM	0.2	0.2	U
7440-62-2	VANADIUM	0.01	0.01	U
7440-66-6	ZINC	0.02	0.02	U

Data Package ID: *it1111160-1*

ICP Metals

Method SW6010

Calibration Blanks

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Lab ID: CCB14
QC Type: Continuing Calibration

Run ID: IT111118-2A1
Date Analyzed: 11/18/2011
Time Analyzed: 8:33:00 PM
Result Units: MG/L

CASNO	Target Analyte	Result	Reporting Limit	Result Qualifier
7429-90-5	ALUMINUM	0.2	0.2	U
7440-36-0	ANTIMONY	0.02	0.02	U
7440-38-2	ARSENIC	0.01	0.01	U
7440-39-3	BARIUM	0.1	0.1	U
7440-41-7	BERYLLIUM	0.005	0.005	U
7440-43-9	CADMIUM	0.005	0.005	U
7440-70-2	CALCIUM	1	1	U
7440-47-3	CHROMIUM	0.01	0.01	U
7440-48-4	COBALT	0.01	0.01	U
7440-50-8	COPPER	0.01	0.01	U
7439-89-6	IRON	0.1	0.1	U
7439-92-1	LEAD	0.003	0.003	U
7439-95-4	MAGNESIUM	1	1	U
7439-96-5	MANGANESE	0.01	0.01	U
7439-98-7	MOLYBDENUM	0.01	0.01	U
7440-02-0	NICKEL	0.02	0.02	U
7440-09-7	POTASSIUM	1	1	U
7782-49-2	SELENIUM	0.005	0.005	U
7440-22-4	SILVER	0.01	0.01	U
7440-23-5	SODIUM	1	1	U
7440-28-0	THALLIUM	0.01	0.01	U
7440-31-5	TIN	0.05	0.05	U
7440-61-1	URANIUM	0.2	0.2	U
7440-62-2	VANADIUM	0.01	0.01	U
7440-66-6	ZINC	0.02	0.02	U

Data Package ID: *it1111160-1*

ICP Metals

Method SW6010

Calibration Blanks

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Lab ID: CCB15
 QC Type: Continuing Calibration

Run ID: IT111118-2A1
 Date Analyzed: 11/18/2011
 Time Analyzed: 8:57:00 PM
 Result Units: MG/L

CASNO	Target Analyte	Result	Reporting Limit	Result Qualifier
7429-90-5	ALUMINUM	0.2	0.2	U
7440-36-0	ANTIMONY	0.02	0.02	U
7440-38-2	ARSENIC	0.01	0.01	U
7440-39-3	BARIUM	0.1	0.1	U
7440-41-7	BERYLLIUM	0.005	0.005	U
7440-43-9	CADMIUM	0.005	0.005	U
7440-70-2	CALCIUM	1	1	U
7440-47-3	CHROMIUM	0.01	0.01	U
7440-48-4	COBALT	0.01	0.01	U
7440-50-8	COPPER	0.01	0.01	U
7439-89-6	IRON	0.1	0.1	U
7439-92-1	LEAD	0.003	0.003	U
7439-95-4	MAGNESIUM	1	1	U
7439-96-5	MANGANESE	0.01	0.01	U
7439-98-7	MOLYBDENUM	0.01	0.01	U
7440-02-0	NICKEL	0.02	0.02	U
7440-09-7	POTASSIUM	1	1	U
7782-49-2	SELENIUM	0.005	0.005	U
7440-22-4	SILVER	0.01	0.01	U
7440-23-5	SODIUM	1	1	U
7440-28-0	THALLIUM	0.01	0.01	U
7440-31-5	TIN	0.05	0.05	U
7440-61-1	URANIUM	0.2	0.2	U
7440-62-2	VANADIUM	0.01	0.01	U
7440-66-6	ZINC	0.02	0.02	U

Data Package ID: *it1111160-1*

ICP Metals

Method SW6010

Calibration Blanks

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Lab ID: CCB16
 QC Type: Continuing Calibration

Run ID: IT111118-2A1
 Date Analyzed: 11/18/2011
 Time Analyzed: 9:20:00 PM
 Result Units: MG/L

CASNO	Target Analyte	Result	Reporting Limit	Result Qualifier
7429-90-5	ALUMINUM	0.2	0.2	U
7440-36-0	ANTIMONY	0.02	0.02	U
7440-38-2	ARSENIC	0.01	0.01	U
7440-39-3	BARIUM	0.1	0.1	U
7440-41-7	BERYLLIUM	0.005	0.005	U
7440-43-9	CADMIUM	0.005	0.005	U
7440-70-2	CALCIUM	1	1	U
7440-47-3	CHROMIUM	0.01	0.01	U
7440-48-4	COBALT	0.01	0.01	U
7440-50-8	COPPER	0.01	0.01	U
7439-89-6	IRON	0.1	0.1	U
7439-92-1	LEAD	0.003	0.003	U
7439-95-4	MAGNESIUM	1	1	U
7439-96-5	MANGANESE	0.01	0.01	U
7439-98-7	MOLYBDENUM	0.01	0.01	U
7440-02-0	NICKEL	0.02	0.02	U
7440-09-7	POTASSIUM	1	1	U
7782-49-2	SELENIUM	0.005	0.005	U
7440-22-4	SILVER	0.01	0.01	U
7440-23-5	SODIUM	1	1	U
7440-28-0	THALLIUM	0.01	0.01	U
7440-31-5	TIN	0.05	0.05	U
7440-61-1	URANIUM	0.2	0.2	U
7440-62-2	VANADIUM	0.01	0.01	U
7440-66-6	ZINC	0.02	0.02	U

Data Package ID: *it1111160-1*

ICP Metals

Method SW6010

Calibration Blanks

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Lab ID: CCB17
 QC Type: Continuing Calibration

Run ID: IT111118-2A1
 Date Analyzed: 11/18/2011
 Time Analyzed: 9:43:00 PM
 Result Units: MG/L

CASNO	Target Analyte	Result	Reporting Limit	Result Qualifier
7429-90-5	ALUMINUM	0.2	0.2	U
7440-36-0	ANTIMONY	0.02	0.02	U
7440-38-2	ARSENIC	0.01	0.01	U
7440-39-3	BARIUM	0.1	0.1	U
7440-41-7	BERYLLIUM	0.005	0.005	U
7440-43-9	CADMIUM	0.005	0.005	U
7440-70-2	CALCIUM	1	1	U
7440-47-3	CHROMIUM	0.01	0.01	U
7440-48-4	COBALT	0.01	0.01	U
7440-50-8	COPPER	0.01	0.01	U
7439-89-6	IRON	0.1	0.1	U
7439-92-1	LEAD	0.003	0.003	U
7439-95-4	MAGNESIUM	1	1	U
7439-96-5	MANGANESE	0.01	0.01	U
7439-98-7	MOLYBDENUM	0.01	0.01	U
7440-02-0	NICKEL	0.02	0.02	U
7440-09-7	POTASSIUM	1	1	U
7782-49-2	SELENIUM	0.005	0.005	U
7440-22-4	SILVER	0.01	0.01	U
7440-23-5	SODIUM	1	1	U
7440-28-0	THALLIUM	0.01	0.01	U
7440-31-5	TIN	0.05	0.05	U
7440-61-1	URANIUM	0.2	0.2	U
7440-62-2	VANADIUM	0.01	0.01	U
7440-66-6	ZINC	0.02	0.02	U

Data Package ID: it1111160-1

ICP Metals

Method SW6010

Calibration Blanks

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Lab ID: CCB18
QC Type: Continuing Calibration

Run ID: IT111118-2A1
 Date Analyzed: 11/18/2011
 Time Analyzed: 10:08:00 PM
 Result Units: MG/L

CASNO	Target Analyte	Result	Reporting Limit	Result Qualifier
7429-90-5	ALUMINUM	0.2	0.2	U
7440-36-0	ANTIMONY	0.02	0.02	U
7440-38-2	ARSENIC	0.01	0.01	U
7440-39-3	BARIUM	0.1	0.1	U
7440-41-7	BERYLLIUM	0.005	0.005	U
7440-43-9	CADMIUM	0.005	0.005	U
7440-70-2	CALCIUM	1	1	U
7440-47-3	CHROMIUM	0.01	0.01	U
7440-48-4	COBALT	0.01	0.01	U
7440-50-8	COPPER	0.01	0.01	U
7439-89-6	IRON	0.1	0.1	U
7439-92-1	LEAD	0.003	0.003	U
7439-95-4	MAGNESIUM	1	1	U
7439-96-5	MANGANESE	0.01	0.01	U
7439-98-7	MOLYBDENUM	0.01	0.01	U
7440-02-0	NICKEL	0.02	0.02	U
7440-09-7	POTASSIUM	1	1	U
7782-49-2	SELENIUM	0.005	0.005	U
7440-22-4	SILVER	0.01	0.01	U
7440-23-5	SODIUM	1	1	U
7440-28-0	THALLIUM	0.01	0.01	U
7440-31-5	TIN	0.05	0.05	U
7440-61-1	URANIUM	0.2	0.2	U
7440-62-2	VANADIUM	0.01	0.01	U
7440-66-6	ZINC	0.02	0.02	U

Data Package ID: it1111160-1

ICP Metals

Method SW6010

Calibration Blanks

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Lab ID: CCB19
 QC Type: Continuing Calibration

Run ID: IT111118-2A1
 Date Analyzed: 11/18/2011
 Time Analyzed: 10:27:00 PM
 Result Units: MG/L

CASNO	Target Analyte	Result	Reporting Limit	Result Qualifier
7429-90-5	ALUMINUM	0.2	0.2	U
7440-36-0	ANTIMONY	0.02	0.02	U
7440-38-2	ARSENIC	0.01	0.01	U
7440-39-3	BARIUM	0.1	0.1	U
7440-41-7	BERYLLIUM	0.005	0.005	U
7440-43-9	CADMIUM	0.005	0.005	U
7440-70-2	CALCIUM	1	1	U
7440-47-3	CHROMIUM	0.01	0.01	U
7440-48-4	COBALT	0.01	0.01	U
7440-50-8	COPPER	0.01	0.01	U
7439-89-6	IRON	0.1	0.1	U
7439-92-1	LEAD	0.003	0.003	U
7439-95-4	MAGNESIUM	1	1	U
7439-96-5	MANGANESE	0.01	0.01	U
7439-98-7	MOLYBDENUM	0.01	0.01	U
7440-02-0	NICKEL	0.02	0.02	U
7440-09-7	POTASSIUM	1	1	U
7782-49-2	SELENIUM	0.005	0.005	U
7440-22-4	SILVER	0.01	0.01	U
7440-23-5	SODIUM	1	1	U
7440-28-0	THALLIUM	0.01	0.01	U
7440-31-5	TIN	0.05	0.05	U
7440-61-1	URANIUM	0.2	0.2	U
7440-62-2	VANADIUM	0.01	0.01	U
7440-66-6	ZINC	0.02	0.02	U

Data Package ID: *it1111160-1*

ICP Metals

Method SW6010

ICP Interference Check Sample

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Run ID: IT111117-2A1

Date Analyzed: 11/17/2011

Result Units: MG/L

CASNO	Target Analyte	Spike Added		Results		% Rec.
		ICSA1	ICSAB1	ICSA1	ICSAB1	
7429-90-5	ALUMINUM	250	250	265	214	85
7440-36-0	ANTIMONY		0.6		0.56300	94
7440-38-2	ARSENIC		0.1		0.10100	101
7440-39-3	BARIUM		0.5		0.50900	102
7440-41-7	BERYLLIUM		0.5		0.478	96
7440-43-9	CADMIUM		1		1.04	104
7440-70-2	CALCIUM	250	250	262	267	107
7440-47-3	CHROMIUM		0.5		0.48	96
7440-48-4	COBALT		0.5		0.484	97
7440-50-8	COPPER		0.5		0.51800	104
7439-89-6	IRON	100	100	108	110	110
7439-92-1	LEAD		0.05		0.0477	95
7439-95-4	MAGNESIUM	250	250	267	271	108
7439-96-5	MANGANESE		0.5		0.49000	98
7439-98-7	MOLYBDENUM		1		0.99900	100
7440-02-0	NICKEL		1		0.95	95
7440-09-7	POTASSIUM					
7782-49-2	SELENIUM		0.05		0.04800	96
7440-22-4	SILVER		0.2		0.203	102
7440-23-5	SODIUM					
7440-28-0	THALLIUM		0.1		0.10700	107
7440-31-5	TIN		1		1	100
7440-61-1	URANIUM		10		10.1000	101
7440-62-2	VANADIUM		0.5		0.489	98
7440-66-6	ZINC		1		0.91500	91

Data Package ID: *it1111160-1*

ICP Metals

Method SW6010

ICP Interference Check Sample

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Run ID: IT111117-2A1

Date Analyzed: 11/17/2011

Result Units: MG/L

CASNO	Target Analyte	Spike Added		Results		% Rec.
		ICSA2	ICSAB2	ICSA2	ICSAB2	
7429-90-5	ALUMINUM	250	250	264	211	84
7440-36-0	ANTIMONY		0.6		0.553	92
7440-38-2	ARSENIC		0.1		0.09860	99
7440-39-3	BARIUM		0.5		0.498	100
7440-41-7	BERYLLIUM		0.5		0.471	94
7440-43-9	CADMIUM		1		1.04	104
7440-70-2	CALCIUM	250	250	264	264	106
7440-47-3	CHROMIUM		0.5		0.475	95
7440-48-4	COBALT		0.5		0.48	96
7440-50-8	COPPER		0.5		0.52	104
7439-89-6	IRON	100	100	107	107	107
7439-92-1	LEAD		0.05		0.05000	100
7439-95-4	MAGNESIUM	250	250	268	268	107
7439-96-5	MANGANESE		0.5		0.48	96
7439-98-7	MOLYBDENUM		1		0.983	98
7440-02-0	NICKEL		1		0.94700	95
7440-09-7	POTASSIUM					
7782-49-2	SELENIUM		0.05		0.051	102
7440-22-4	SILVER		0.2		0.205	102
7440-23-5	SODIUM					
7440-28-0	THALLIUM		0.1		0.10300	103
7440-31-5	TIN		1		0.99900	100
7440-61-1	URANIUM		10		9.85000	99
7440-62-2	VANADIUM		0.5		0.48300	97
7440-66-6	ZINC		1		0.89700	90

Data Package ID: *it1111160-1*

ICP Metals

Method SW6010

ICP Interference Check Sample

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Run ID: IT111118-2A1

Date Analyzed: 11/18/2011

Result Units: MG/L

CASNO	Target Analyte	Spike Added		Results		% Rec.
		ICSA1	ICSAB1	ICSA1	ICSAB1	
7429-90-5	ALUMINUM	250	250	277	222	89
7440-36-0	ANTIMONY		0.6		0.58	97
7440-38-2	ARSENIC		0.1		0.106	106
7440-39-3	BARIUM		0.5		0.52100	104
7440-41-7	BERYLLIUM		0.5		0.477	95
7440-43-9	CADMIUM		1		0.98000	98
7440-70-2	CALCIUM	250	250	264	264	105
7440-47-3	CHROMIUM		0.5		0.471	94
7440-48-4	COBALT		0.5		0.47200	94
7440-50-8	COPPER		0.5		0.53700	107
7439-89-6	IRON	100	100	111	112	112
7439-92-1	LEAD		0.05		0.04940	99
7439-95-4	MAGNESIUM	250	250	274	276	110
7439-96-5	MANGANESE		0.5		0.496	99
7439-98-7	MOLYBDENUM		1		0.977	98
7440-02-0	NICKEL		1		0.92400	92
7440-09-7	POTASSIUM					
7782-49-2	SELENIUM		0.05		0.05040	101
7440-22-4	SILVER		0.2		0.189	94
7440-23-5	SODIUM					
7440-28-0	THALLIUM		0.1		0.10300	103
7440-31-5	TIN		1		1.05	105
7440-61-1	URANIUM		10		10.3000	103
7440-62-2	VANADIUM		0.5		0.477	95
7440-66-6	ZINC		1		0.92000	92

Data Package ID: *it1111160-1*

ICP Metals

Method SW6010

ICP Interference Check Sample

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Run ID: IT111118-2A1

Date Analyzed: 11/18/2011

Result Units: MG/L

CASNO	Target Analyte	Spike Added		Results		% Rec.
		ICSA2	ICSAB2	ICSA2	ICSAB2	
7429-90-5	ALUMINUM	250	250	276	218	87
7440-36-0	ANTIMONY		0.6		0.58300	97
7440-38-2	ARSENIC		0.1		0.09780	98
7440-39-3	BARIUM		0.5		0.50800	102
7440-41-7	BERYLLIUM		0.5		0.461	92
7440-43-9	CADMIUM		1		0.98900	99
7440-70-2	CALCIUM	250	250	256	257	103
7440-47-3	CHROMIUM		0.5		0.45500	91
7440-48-4	COBALT		0.5		0.461	92
7440-50-8	COPPER		0.5		0.53500	107
7439-89-6	IRON	100	100	105	105	105
7439-92-1	LEAD		0.05		0.0479	96
7439-95-4	MAGNESIUM	250	250	270	269	108
7439-96-5	MANGANESE		0.5		0.471	94
7439-98-7	MOLYBDENUM		1		0.95800	96
7440-02-0	NICKEL		1		0.959	96
7440-09-7	POTASSIUM					
7782-49-2	SELENIUM		0.05		0.0503	101
7440-22-4	SILVER		0.2		0.188	94
7440-23-5	SODIUM					
7440-28-0	THALLIUM		0.1		0.10300	103
7440-31-5	TIN		1		1.05	105
7440-61-1	URANIUM		10		9.89000	99
7440-62-2	VANADIUM		0.5		0.466	93
7440-66-6	ZINC		1		0.88800	89

Data Package ID: *it1111160-1*

Metals Linear Ranges

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Instrument ID: ICPTTrace2

Active Date: 03/02/2010

Expiration Date: 05/31/2015

CASNO	Target Analyte	Concentration (ppm)
7429-90-5	ALUMINUM	500
7440-36-0	ANTIMONY	2
7440-38-2	ARSENIC	5
7440-39-3	BARIUM	10
7440-41-7	BERYLLIUM	1
7440-43-9	CADMIUM	5
7440-70-2	CALCIUM	500
7440-47-3	CHROMIUM	10
7440-48-4	COBALT	5
7440-50-8	COPPER	10
7439-89-6	IRON	200
7439-92-1	LEAD	10
7439-95-4	MAGNESIUM	500
7439-96-5	MANGANESE	10
7439-98-7	MOLYBDENUM	10
7440-02-0	NICKEL	10
7440-09-7	POTASSIUM	250
7782-49-2	SELENIUM	5
7440-22-4	SILVER	2
7440-23-5	SODIUM	150
7440-28-0	THALLIUM	5
7440-31-5	TIN	10
7440-61-1	URANIUM	50
7440-62-2	VANADIUM	5
7440-66-6	ZINC	10

ICP Interelement Correction Factors

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Instrument ID: ICPTTrace2

Active Date: 11/17/2009

Expiration Date: 11/17/2010

Page 1

Analyte	Lamda (nm)	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Ni	Th
ALUMINUM																	
ANTIMONY									0.0103504								
BERYLLIUM																	
CADMIUM				0.0068507													
CHROMIUM																	
COBALT					-0.001400												
COPPER																	
LEAD		0.0002386										0.0000243					
SELENIUM												0.000036					
SILVER																	
THALLIUM												-0.000142			-0.000176		
TIN																	
URANIUM												0.0006809					
VANADIUM												-0.000194					

109 pf 618

ICP Interelement Correction Factors

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Instrument ID: ICPTrace2

Active Date: 11/17/2009

Expiration Date: 11/17/2010

Page 2

Analyte	Lamda (nm)	K	Se	Ag	Na	Tl	V	Zn	Sn	Ti	Mo	Li	Sr	B	Si	U	Zr
ALUMINUM							0.0125517				0.0033239					-0.028003	
ANTIMONY											-0.008489						
BERYLLIUM							0.0010513										
CADMIUM																	
CHROMIUM																0.0005333	
COBALT										0.002105							
COPPER																0.0007767	
LEAD										0.0002142	-0.001821					0.0009113	
SELENIUM																0.0000151	
SILVER																0.0006982	
THALLIUM							0.0006359			-0.000251						-0.000582	
TIN										0.0011632							
URANIUM																	
VANADIUM																	

110 of 618

ICPTrace2 Run Log -- 11/17/2011

Instrument ID: ICPTrace2
File Name: 111117A.
AnalRunID: IT111117-2A1
CalibRefID: IT111117-2A1

Comment	Field ID	Lab ID	DF	Date Analyzed	Time Analyzed
		MIXBHIGH	1	11/17/2011	13:43
		MIXBHIGH	1	11/17/2011	14:07
		MIXAHIGH	1	11/17/2011	14:12
		MIXCHIGH	1	11/17/2011	14:13
		ICV	1	11/17/2011	14:28
		ZZZ	1	11/17/2011	14:29
		ICB	1	11/17/2011	14:32
		CRI1	1	11/17/2011	14:35
		ICSA1	1	11/17/2011	14:37
		ICSAB1	1	11/17/2011	14:44
		CCV1	1	11/17/2011	14:46
		CCB1	1	11/17/2011	14:48
		F111115-1MB	1	11/17/2011	14:50
		F111115-1	1	11/17/2011	14:52
		F111115-1LCS	1	11/17/2011	14:53
		1111119-1	1	11/17/2011	14:55
- S		1111150-1	1	11/17/2011	14:57
- S		1111150-1DUP	1	11/17/2011	14:59
- S		1111150-1SER	5	11/17/2011	15:01
- S		1111150-1MS	1	11/17/2011	15:02
- S		1111150-1MSD	1	11/17/2011	15:04
- Na		1111179-1	1	11/17/2011	15:06
		CCV2	1	11/17/2011	15:09
		CCB2	1	11/17/2011	15:10
		1111184-1	1	11/17/2011	15:12
+ Na		1111179-1	5	11/17/2011	15:14
		CCV3	1	11/17/2011	15:16
		CCB3	1	11/17/2011	15:20
		IP111116-3MB	1	11/17/2011	15:21
		IP111116-3	1	11/17/2011	15:23
		IP111116-3LCS	1	11/17/2011	15:25
		1111185-2	1	11/17/2011	15:27
		1111185-3	1	11/17/2011	15:28
- Na,S		1111185-4	1	11/17/2011	15:30
- Na,S		1111185-5	1	11/17/2011	15:32

Data Package ID: IT1111160-1

ICPTrace2 Run Log -- 11/17/2011

Instrument ID: ICPTrace2
 File Name: 111117A.
 AnalRunID: IT111117-2A1
 CalibRefID: IT111117-2A1

Comment	Field ID	Lab ID	DF	Date Analyzed	Time Analyzed
		1111185-6	1	11/17/2011	15:34
		1111185-7	1	11/17/2011	15:36
		1111185-8	1	11/17/2011	15:37
		CCV4	1	11/17/2011	15:40
		CCB4	1	11/17/2011	15:42
		1111185-9	1	11/17/2011	15:44
		1111185-10	1	11/17/2011	15:46
		1111185-11	1	11/17/2011	15:47
		1111185-12	1	11/17/2011	15:49
		1111185-12DUP	1	11/17/2011	15:51
		1111185-12SER	5	11/17/2011	15:53
		1111185-12MS	1	11/17/2011	15:55
		1111185-12MSD	1	11/17/2011	15:56
		1111185-14	1	11/17/2011	15:58
		1111185-15	1	11/17/2011	16:00
		CCV5	1	11/17/2011	16:03
		CCB5	1	11/17/2011	16:05
		1111185-16	1	11/17/2011	16:06
		1111185-17	1	11/17/2011	16:08
		1111185-18	1	11/17/2011	16:10
		1111185-19	1	11/17/2011	16:12
		1111185-20	1	11/17/2011	16:14
		1111185-22	1	11/17/2011	16:16
		1111185-23	1	11/17/2011	16:17
		IP111116-4MB	1	11/17/2011	16:19
		IP111116-4	1	11/17/2011	16:21
		CCV6	1	11/17/2011	16:33
		CCB6	1	11/17/2011	16:35
		IP111116-4LCS	1	11/17/2011	16:36
		1111137-1	1	11/17/2011	16:38
		1111138-1	1	11/17/2011	16:40
		1111140-1	1	11/17/2011	16:42
-Si,Zr	ALSW-01-111107	1111160-1	1	11/17/2011	16:44
		1111162-16	1	11/17/2011	16:46
		1111185-13	1	11/17/2011	16:47

Data Package ID: IT1111160-1

ICPTrace2 Run Log -- 11/17/2011

Instrument ID: ICPTrace2
File Name: 111117A.
AnalRunID: IT111117-2A1
CalibRefID: IT111117-2A1

Comment	Field ID	Lab ID	DF	Date Analyzed	Time Analyzed
		1111185-13DUP	1	11/17/2011	16:49
		1111185-13SER	5	11/17/2011	16:51
		1111185-13MS	1	11/17/2011	16:53
		CCV7	1	11/17/2011	16:55
		CCB7	1	11/17/2011	16:57
		1111185-13MSD	1	11/17/2011	16:59
		1111185-24	1	11/17/2011	17:01
		1111185-25	1	11/17/2011	17:03
		1111185-26	1	11/17/2011	17:05
		1111185-27	1	11/17/2011	17:07
		1111185-28	1	11/17/2011	17:09
		1111185-29	1	11/17/2011	17:11
		1111185-30	1	11/17/2011	17:12
		1111185-31	1	11/17/2011	17:14
		1111185-32	1	11/17/2011	17:16
		CCV8	1	11/17/2011	17:19
		CCB8	1	11/17/2011	17:21
		1111185-33	1	11/17/2011	17:22
		1111185-34	1	11/17/2011	17:24
		1111185-35	1	11/17/2011	17:26
- K,Mg,Na,S,Th		1111205-1	1	11/17/2011	17:28
- K,Mg,Na,S,Th		1111205-2	1	11/17/2011	17:30
+ Na,S		1111185-4	5	11/17/2011	17:34
+ Na,S		1111185-5	5	11/17/2011	17:36
		CRI2	1	11/17/2011	17:38
		ICSA2	1	11/17/2011	17:40
		ICSAB2	1	11/17/2011	17:41
		CCV9	1	11/17/2011	17:43
		CCB9	1	11/17/2011	17:46

Data Package ID: IT1111160-1

ICPTrace2 Run Log -- 11/18/2011

Instrument ID: ICPTrace2
File Name: 111118A.
AnalRunID: IT111118-2A1
CalibRefID: IT111118-2A1

Comment	Field ID	Lab ID	DF	Date Analyzed	Time Analyzed
		MIXBHIGH	1	11/18/2011	14:08
		MIXAHIGH	1	11/18/2011	14:10
		MIXCHIGH	1	11/18/2011	14:12
		ICV	1	11/18/2011	14:47
		ICB	1	11/18/2011	14:49
		CRI1	1	11/18/2011	14:51
		ICSA1	1	11/18/2011	14:53
		ICSAB1	1	11/18/2011	14:55
		CCV1	1	11/18/2011	15:00
		CCB1	1	11/18/2011	15:02
		F111115-1LCS	1	11/18/2011	15:04
- Na		1111179-1	1	11/18/2011	15:06
		1111184-1	1	11/18/2011	15:08
		IP111116-5MB	1	11/18/2011	15:10
		IP111116-5LCS	1	11/18/2011	15:11
		1111037-3	1	11/18/2011	15:13
		1111037-3DUP	1	11/18/2011	15:15
		1111037-3SER	5	11/18/2011	15:17
		1111037-3MS	1	11/18/2011	15:19
		1111037-3MSD	1	11/18/2011	15:20
		CCV2	1	11/18/2011	15:23
		CCB2	1	11/18/2011	15:25
- Ca, Na, Sr		1111040-1	10	11/18/2011	15:27
- Ca, Na, Sr		1111040-3	10	11/18/2011	15:29
- Ba, Ca, Co, Na, Sr		1111040-4	10	11/18/2011	15:31
- Ba, Ca, Co, Na, Sr		1111040-5	10	11/18/2011	15:33
- Ca, Na, Sr		1111040-7	10	11/18/2011	15:35
- Ba, Ca, Co, Na, Sr		1111051-1	10	11/18/2011	15:37
- Ba, Ca, Co, Na, Sr		1111051-2	10	11/18/2011	15:38
		1111059-9	1	11/18/2011	15:42
		1111059-10	1	11/18/2011	15:44
		1111078-2	1	11/18/2011	15:46
		CCV3	1	11/18/2011	15:48
		CCB3	1	11/18/2011	15:50
		1111078-8	1	11/18/2011	15:52

Data Package ID: IT1111160-1

ICPTrace2 Run Log -- 11/18/2011

Instrument ID: ICPTrace2
 File Name: 111118A.
 AnalRunID: IT111118-2A1
 CalibRefID: IT111118-2A1

Comment	Field ID	Lab ID	DF	Date Analyzed	Time Analyzed
		1111078-14	1	11/18/2011	15:54
		1111078-19	1	11/18/2011	15:56
		1111078-35	1	11/18/2011	15:58
		IP1111117-1MB	1	11/18/2011	15:59
		IP1111117-1	1	11/18/2011	16:01
		ZZZ	1	11/18/2011	16:03
- Bi,Cu,Fe,Mn,Pb,Se,Ti,U,V,Zn		1110384-1	1	11/18/2011	16:05
- Bi,Cu,Fe,Pb,Se,Ti,U,V,Zn		1110384-2	1	11/18/2011	16:07
		1110384-3	1	11/18/2011	16:16
		CCV4	1	11/18/2011	16:17
		CCB4	1	11/18/2011	16:19
		1110384-4	1	11/18/2011	16:21
- Pb		1110384-5	1	11/18/2011	16:23
- Pb		1110384-6	1	11/18/2011	16:25
	BKGD-E-31-111107	1111160-2	1	11/18/2011	16:31
	BKGD-E-31-111107	1111160-2DUP	1	11/18/2011	16:33
	BKGD-E-31-111107	1111160-2SER	5	11/18/2011	16:34
	BKGD-E-31-111107	1111160-2MS	1	11/18/2011	16:36
	BKGD-E-31-111107	1111160-2MSD	1	11/18/2011	16:38
- Fe,Pb,Se,Ti,U,V	BKGD-N-31-111107	1111160-3	1	11/18/2011	16:40
- Fe,Pb,Se,Ti,U,V	BKGD-S-31-111107	1111160-4	1	11/18/2011	16:42
		CCV5	1	11/18/2011	16:44
		CCB5	1	11/18/2011	16:46
- Fe,Pb,Se,Ti,U,V	BKGD-W-31-111107	1111160-5	1	11/18/2011	16:48
	S12-12-31-111107	1111160-6	1	11/18/2011	16:50
	S12-14-31-111107	1111160-7	1	11/18/2011	16:52
	S12-22-31-111107	1111160-8	1	11/18/2011	16:54
	S12-33-31-111107	1111160-9	1	11/18/2011	16:55
	S12-34-31-111107	1111160-10	1	11/18/2011	16:57
	S12-34-32-111107	1111160-11	1	11/18/2011	16:59
	S12-35-31-111107	1111160-12	1	11/18/2011	17:01
	S12-52-31-111107	1111160-13	1	11/18/2011	17:03
- S	S12-56-31-111107	1111160-14	1	11/18/2011	17:04
		CCV6	1	11/18/2011	17:07
		CCB6	1	11/18/2011	17:09

Data Package ID: IT1111160-1

ICPTrace2 Run Log -- 11/18/2011

Instrument ID: ICPTrace2
File Name: 111118A.
AnalRunID: IT111118-2A1
CalibRefID: IT111118-2A1

Comment	Field ID	Lab ID	DF	Date Analyzed	Time Analyzed
	S12-64-31-111107	1111160-15	1	11/18/2011	17:11
+ Ca,Sr		1111040-1	100	11/18/2011	17:13
+ Ca,Sr		1111040-3	100	11/18/2011	17:15
+ Ba,Ca,Co		1111040-4	100	11/18/2011	17:16
+ Ba,Ca,Co		1111040-5	100	11/18/2011	17:18
+ Ca,Sr		1111040-7	100	11/18/2011	17:20
+ Ba,Ca,Co		1111051-1	100	11/18/2011	17:22
+ Ba,Ca,Co		1111051-2	100	11/18/2011	17:24
		CCV7	1	11/18/2011	17:26
		CCB7	1	11/18/2011	17:28
		IP1111117-1LCS	1	11/18/2011	17:49
+ Bi,Cu,Fe,Mn,Pb,Se,Ti,U,V,Zn		1110384-1	10	11/18/2011	17:51
+ Bi,Cu,Fe,Pb,Se,Ti,U,V,Zn		1110384-2	10	11/18/2011	17:53
+ Pb		1110384-5	10	11/18/2011	17:55
+ Pb		1110384-6	10	11/18/2011	17:56
+ Fe,Pb,Se,Ti,U,V	BKGD-N-31-111107	1111160-3	5	11/18/2011	17:58
+ Fe,Pb,Se,Ti,U,V	BKGD-S-31-111107	1111160-4	5	11/18/2011	18:00
+ Fe,Pb,Se,Ti,U,V	BKGD-W-31-111107	1111160-5	5	11/18/2011	18:02
+ Na		1111040-1	1000	11/18/2011	18:04
+ Na		1111040-3	1000	11/18/2011	18:06
		CCV8	1	11/18/2011	18:08
		CCB8	1	11/18/2011	18:10
+ Na,Sr		1111040-4	1000	11/18/2011	18:12
+ Na,Sr		1111040-5	1000	11/18/2011	18:14
+ Na		1111040-7	1000	11/18/2011	18:16
+ Na,Sr		1111051-1	1000	11/18/2011	18:17
+ Na,Sr		1111051-2	1000	11/18/2011	18:19
+ B,Ba,K,Li,Sb,Si,Ti,Zn,Zr	BKGD-E-31-111107	1111160-2A	1	11/18/2011	18:21
		IP1111117-2MB	1	11/18/2011	18:23
		IP1111117-2	1	11/18/2011	18:25
		IP1111117-2LCS	1	11/18/2011	18:27
		1111162-1	1	11/18/2011	18:32
		CCV9	1	11/18/2011	18:34
		CCB9	1	11/18/2011	18:36
		1111162-1DUP	1	11/18/2011	18:38

Data Package ID: IT1111160-1

ICPTrace2 Run Log -- 11/18/2011

Instrument ID: ICPTrace2
 File Name: 111118A.
 AnalRunID: IT111118-2A1
 CalibRefID: IT111118-2A1

Comment	Field ID	Lab ID	DF	Date Analyzed	Time Analyzed
		1111162-1SER	5	11/18/2011	18:40
		1111162-1MS	1	11/18/2011	18:42
		1111162-1MSD	1	11/18/2011	18:44
		1111162-2	1	11/18/2011	18:46
		1111162-3	1	11/18/2011	18:48
		1111162-4	1	11/18/2011	18:49
		1111162-5	1	11/18/2011	18:51
		1111162-6	1	11/18/2011	18:53
		1111162-7	1	11/18/2011	18:55
		CCV10	1	11/18/2011	18:57
		CCB10	1	11/18/2011	18:59
		1111162-8	1	11/18/2011	19:01
		1111162-9	1	11/18/2011	19:03
		1111162-10	1	11/18/2011	19:05
		1111162-11	1	11/18/2011	19:07
		1111162-12	1	11/18/2011	19:09
		1111162-13	1	11/18/2011	19:11
		1111162-14	1	11/18/2011	19:12
		1111162-15	1	11/18/2011	19:14
		IP111118-2MB	1	11/18/2011	19:16
		IP111118-2	1	11/18/2011	19:18
		CCV11	1	11/18/2011	19:20
		CCB11	1	11/18/2011	19:22
		IP111118-2LCS	1	11/18/2011	19:24
		1111071-1	1	11/18/2011	19:26
		1111071-1DUP	1	11/18/2011	19:28
		1111071-1SER	5	11/18/2011	19:30
		1111071-1MS	1	11/18/2011	19:32
		1111071-1MSD	1	11/18/2011	19:34
- Na,Sr		1111104-1	10	11/18/2011	19:36
		1111170-1	1	11/18/2011	19:38
		1111171-1	1	11/18/2011	19:40
		1111173-1	1	11/18/2011	19:42
		CCV12	1	11/18/2011	19:44
		CCB12	1	11/18/2011	19:46

Data Package ID: IT1111160-1

ICPTrace2 Run Log -- 11/18/2011

Instrument ID: ICPTrace2
File Name: 111118A.
AnalRunID: IT111118-2A1
CalibRefID: IT111118-2A1

Comment	Field ID	Lab ID	DF	Date Analyzed	Time Analyzed
		1111174-1	1	11/18/2011	19:48
		1111180-1	1	11/18/2011	19:50
		1111181-1	1	11/18/2011	19:52
		1111182-1	1	11/18/2011	19:54
		1111183-1	1	11/18/2011	19:56
		1111207-1	1	11/18/2011	19:58
		1111209-1	1	11/18/2011	20:00
		1111210-1	1	11/18/2011	20:02
- Na		1111232-1	1	11/18/2011	20:04
		1111233-1	1	11/18/2011	20:05
		CCV13	1	11/18/2011	20:08
		CCB13	1	11/18/2011	20:10
		1111234-1	1	11/18/2011	20:12
- Na		1111235-1	1	11/18/2011	20:14
- S		1111260-1	1	11/18/2011	20:15
		1111261-1	1	11/18/2011	20:17
+ Mn,Sb		1111162-1A	1	11/18/2011	20:19
		IP111118-3MB	1	11/18/2011	20:21
		IP111118-3	1	11/18/2011	20:23
		IP111118-3LCS	1	11/18/2011	20:25
		1111092-9	1	11/18/2011	20:26
		1111092-10	1	11/18/2011	20:28
		CCV14	1	11/18/2011	20:31
		CCB14	1	11/18/2011	20:33
- Na,S		1111106-22	1	11/18/2011	20:35
- Na,S		1111106-22DUP	1	11/18/2011	20:37
- Na,S		1111106-22SER	5	11/18/2011	20:39
- Na,S		1111106-22MS	1	11/18/2011	20:41
- Na,S		1111106-22MSD	1	11/18/2011	20:43
		1111106-35	1	11/18/2011	20:45
		1111106-48	1	11/18/2011	20:46
- S		1111106-61	1	11/18/2011	20:48
		1111134-1	10	11/18/2011	20:50
		1111134-2	10	11/18/2011	20:52
		CCV15	1	11/18/2011	20:55

Data Package ID: IT1111160-1

ICPTrace2 Run Log -- 11/18/2011

Instrument ID: ICPTrace2
File Name: 111118A.
AnalRunID: IT111118-2A1
CalibRefID: IT111118-2A1

Comment	Field ID	Lab ID	DF	Date Analyzed	Time Analyzed
		CCB15	1	11/18/2011	20:57
		1111134-3	10	11/18/2011	20:59
		1111161-1	10	11/18/2011	21:01
		1111161-2	10	11/18/2011	21:02
		1111161-3	10	11/18/2011	21:04
		1111161-4	10	11/18/2011	21:06
- S		1111172-1	1	11/18/2011	21:08
- S		1111172-2	1	11/18/2011	21:10
- S		1111172-3	1	11/18/2011	21:12
- S		1111172-4	1	11/18/2011	21:14
- Ca, Nb, S, Sr		1111172-5	1	11/18/2011	21:16
		CCV16	1	11/18/2011	21:18
		CCB16	1	11/18/2011	21:20
- Na, S, Sr		1111172-6	1	11/18/2011	21:22
- S		1111172-10	1	11/18/2011	21:24
+ Na, Sr		1111104-1	500	11/18/2011	21:26
+ Na		1111232-1	5	11/18/2011	21:28
+ Na		1111235-1	5	11/18/2011	21:30
- Na, S		1111238-1	5	11/18/2011	21:31
- Na, S		1111238-3	5	11/18/2011	21:33
- Na, S		1111238-3SER	25	11/18/2011	21:35
+ Ca, K, Mg		1111238-3A	5	11/18/2011	21:37
+ Na, S		1111106-22	5	11/18/2011	21:39
		CCV17	1	11/18/2011	21:41
		CCB17	1	11/18/2011	21:43
+ Na, S		1111106-22DUP	5	11/18/2011	21:45
+ Na, S		1111106-22SER	25	11/18/2011	21:47
+ Na, S		1111106-22MS	5	11/18/2011	21:49
+ Na, S		1111106-22MSD	5	11/18/2011	21:51
		1111134-1	1	11/18/2011	21:53
		1111134-2	1	11/18/2011	21:55
		1111134-3	1	11/18/2011	21:57
		1111161-3	1	11/18/2011	21:59
+ Ca, Nb, Sr		1111172-5	10	11/18/2011	22:01
+ Na		1111238-1	25	11/18/2011	22:03

Data Package ID: IT1111160-1

ICPTrace2 Run Log -- 11/18/2011

Instrument ID: ICPTrace2
File Name: 111118A.
AnalRunID: IT111118-2A1
CalibRefID: IT111118-2A1

Comment	Field ID	Lab ID	DF	Date Analyzed	Time Analyzed
		CCV18	1	11/18/2011	22:06
		CCB18	1	11/18/2011	22:08
+ Na,S		1111238-3	25	11/18/2011	22:09
+ Na,S		1111238-3SER	125	11/18/2011	22:11
+ Na		1111238-3A	25	11/18/2011	22:13
+ Na,Sr		1111172-6	10	11/18/2011	22:15
+ K		1111106-22A	1	11/18/2011	22:17
		CRI2	1	11/18/2011	22:19
		ICSA2	1	11/18/2011	22:21
		ICSAB2	1	11/18/2011	22:23
		CCV19	1	11/18/2011	22:25
		CCB19	1	11/18/2011	22:27

Data Package ID: IT1111160-1

ICPMS Metals

Method SW6020A

Method Blank

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Lab ID: IP111116-4MB

Sample Matrix: WATER

Prep Batch: IP111116-4

Sample Aliquot: 50g

% Moisture: N/A

QC Batch ID: IP111116-4-3

Final Volume: 50g

Date Collected: N/A

Run ID: IM111118-10A1

Result Units: UG/L

Date Extracted: 16-Nov-11

Cleanup: NONE

Clean DF: 1

Date Analyzed: 18-Nov-11

Basis: N/A

Prep Method: SW3005 Rev A

File Name: 003SMPL_

CASNO	Target Analyte	DF	Result	Reporting Limit	Result Qualifier	EPA Qualifier
7440-61-1	URANIUM	10	0.1	0.1	U	

Data Package ID: *im1111160-1*

ICPMS Metals

Method SW6020A

Method Blank

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine T00035110902-111110-0001

Lab ID: IP111117-1MB

Sample Matrix: SOIL
% Moisture: N/A
Date Collected: N/A
Date Extracted: 17-Nov-11
Date Analyzed: 18-Nov-11
Prep Method: SW3050 Rev B

Prep Batch: IP111117-1
QCBatchID: IP111117-1-2
Run ID: IM111118-10A1
Cleanup: NONE
Basis: N/A
File Name: 011SMPL.

Sample Aliquot: 1g
Final Volume: 100ml
Result Units: UG/KG
Clean DF: 1

CASNO	Target Analyte	DF	Result	Reporting Limit	Result Qualifier	EPA Qualifier
7440-61-1	URANIUM	10	10	10	U	

Data Package ID: *im1111160-1*

ICPMS Metals
Method SW6020A
Laboratory Control Sample

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Lab ID: IM111116-4LCS	Sample Matrix: WATER	Prep Batch: IP111116-4	Sample Aliquot: 50g
	% Moisture: N/A	QCBatchID: IP111116-4-3	Final Volume: 50g
	Date Collected: N/A	Run ID: IM111118-10A1	Result Units: UG/L
	Date Extracted: 11/16/2011	Cleanup: NONE	Clean DF: 1
	Date Analyzed: 11/18/2011	Basis: N/A	
	Prep Method: SW3005A	File Name: 005SMPL_	

CASNO	Target Analyte	Spike Added	LCS Result	Reporting Limit	Result Qualifier	LCS % Rec.	Control Limits
7440-61-1	URANIUM	10	9.59	0.1		96	80 - 120%

Data Package ID: *im1111160-1*

ICPMS Metals
Method SW6020
Laboratory Control Sample

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Lab ID: IM111117-1LCS	Sample Matrix: SOIL	Prep Batch: IP111117-1	Sample Aliquot: 1g
	% Moisture: N/A	QCBatchID: IP111117-1-2	Final Volume: 100ml
	Date Collected: N/A	Run ID: IM111118-10A1	Result Units: UG/KG
	Date Extracted: 11/17/2011	Cleanup: NONE	Clean DF: 1
	Date Analyzed: 11/18/2011	Basis: N/A	
	Prep Method: SW3050B	File Name: 013SMPL.	

CASNO	Target Analyte	Spike Added	LCS Result	Reporting Limit	Result Qualifier	LCS % Rec.	Control Limits
7440-61-1	URANIUM	1000	1130	10		113	80 - 120%

Data Package ID: im1111160-1

ICPMS Metals

Method SW6020A

Matrix Spike And Matrix Spike Duplicate

Lab Name: ALS Environmental -- FC
Work Order Number: 1111160
Client Name: Weston Solutions, Inc.
ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Field ID: BKGD-E-31-111107 LabID: 1111160-2MS
--

Sample Matrix: SOIL % Moisture: 6.5 Date Collected: 07-Nov-11 Date Extracted: 17-Nov-11 Date Analyzed: 18-Nov-11 Prep Method: SW3050 Rev B	Prep Batch: IP111117-1 QCBatchID: IP111117-1-2 Run ID: IM111118-10A1 Cleanup: NONE Basis: Dry Weight	Sample Aliquot: 1.002 g Final Volume: 100 ml Result Units: UG/KG File Name: 017SMPL.
---	---	---

CASNO	Target Analyte	Sample Result	Samp Qual	MS Result	MS Qual	Reporting Limit	Spike Added	MS % Rec.	Control Limits
7440-61-1	URANIUM	29000		29400		10.7	1070	29	75 - 125%

Field ID: BKGD-E-31-111107 LabID: 1111160-2MSD

Sample Matrix: SOIL % Moisture: 6.5 Date Collected: 07-Nov-11 Date Extracted: 17-Nov-11 Date Analyzed: 18-Nov-11 Prep Method: SW3050 Rev B	Prep Batch: IP111117-1 QCBatchID: IP111117-1-2 Run ID: IM111118-10A1 Cleanup: NONE Basis: Dry Weight	Sample Aliquot: 1.006 g Final Volume: 100 ml Result Units: UG/KG File Name: 018SMPL.
---	---	---

CASNO	Target Analyte	MSD Result	MSD Qual	Spike Added	MSD % Rec.	Reporting Limit	RPD Limit	RPD
7440-61-1	URANIUM	27200		1060	-173	10.6	20	8

Data Package ID: *im1111160-1*

ICPMS Metals

Method SW6020

Duplicate Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Field ID: BKGD-E-31-111107

Lab ID: 1111160-2D

Sample Matrix: SOIL

% Moisture: 6.5

Date Collected: 11/07/2011

Date Extracted: 11/17/2011

Date Analyzed: 11/18/2011

Prep Batch: IP111117-1

QCBatchID: IP111117-1-2

Run ID: IM111118-10A1

Cleanup: NONE

Basis: Dry Weight

File Name: 015SMPL.

Sample Aliquot: 1.016 g

Final Volume: 100 ml

Result Units: UG/KG

Clean DF: 1

CASNO	Target Analyte	Sample Result	Samp Qual	Duplicate Result	Dup Qual	Reporting Limit	Dilution Factor	RPD	RPD Limit
7440-61-1	URANIUM	29000		29500		10.5	10	2	20

Data Package ID: *im1111160-1*

ICPMS Metals

Method SW6020

Serial Dilution

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Field ID: BKGD-E-31-111107

Lab ID: 1111160-2L

Run ID: IM111118-10A1

Date Analyzed: 18-Nov-11

Result Units: mg/l

CASNO	Target Analyte	Sample Result	Samp Qual	SD Result	SD Qual	EPA Qualifier	%D
7440-61-1	URANIUM	0.0277		0.0286			3

Data Package ID: *im1111160-1*

Date Printed: Wednesday, November 30, 2011

ALS Environmental -- FC

Page 1 of 1

LIMS Version: 6.543

Prep Batch ID: IP111116-4

Start Date: 11/16/11

End Date: 11/16/11

Concentration Method: NONE

Batch Created By: bas

Start Time: 14:00

End Time: 18:00

Extract Method: SW3005A

Date Created: 11/16/11

Prep Analyst: Brent A. Stanfield

Initial Volume Units: 9

Time Created: 13:58

Comments:

Final Volume Units: 9

Validated By: bas

Date Validated: 11/16/11

Time Validated: 14:31

QC Batch ID: IP111116-4-3

Lab ID	QC Type	Field ID	Matrix	Date Collected	Initial Wt/Vol	Final Wt/Vol	Cleanup Method	Cleanup DF	Order Number
IP111116-4	MB	XXXXXX	WATER	XXXXXX	50	50	NONE	1	1111185
IM111116-4	LCS	XXXXXX	WATER	XXXXXX	50	50	NONE	1	1111185
1111185-13	MS	XXXXXX	WATER	XXXXXX	50	50	NONE	1	1111185
1111185-13	MSD	XXXXXX	WATER	XXXXXX	50	50	NONE	1	1111185
1111185-13	DUP	XXXXXX	WATER	XXXXXX	50	50	NONE	1	1111185
1111160-1	SMP	ALSW-01-111107	WATER	11/7/2011	50	50	NONE	1	1111160
1111162-16	SMP	XXXXXX	WATER	XXXXXX	50	50	NONE	1	1111162
1111185-13	SMP	XXXXXX	WATER	XXXXXX	50	50	NONE	1	1111185

QC Types

CAR	Carrier reference sample	DUP	Laboratory Duplicate
LCS	Laboratory Control Sample	LCSD	Laboratory Control Sample Duplicate
MB	Method Blank	MS	Laboratory Matrix Spike
MSD	Laboratory Matrix Spike Duplicate	REP	Sample replicate
RVS	Reporting Level Verification Standar	SMP	Field Sample
SYS	Sample Yield Spike		

Prep Batch ID: IP111117-1

Start Date: 11/17/11

End Date: 11/17/11

Concentration Method: NONE

Batch Created By: bas

Start Time: 8:00

End Time: 17:00

Extract Method: SW3050B

Date Created: 11/17/11

Prep Analyst: Brent A. Stanfield

Initial Volume Units: g

Time Created: 7:04

Comments:

Final Volume Units: ml

Validated By: bas

Date Validated: 11/17/11

Time Validated: 8:15

QC Batch ID: IP111117-1-2

Lab ID	QC Type	Field ID	Matrix	Date Collected	Initial Wt/Vol	Final Wt/Vol	Cleanup Method	Cleanup DF	Order Number
IP111117-1	MB	XXXXXX	SOIL	XXXXXX	1	100	NONE	1	1111160
IM111117-1	LCS	XXXXXX	SOIL	XXXXXX	1	100	NONE	1	1111160
1111160-2	MS	BKGD-E-31-111107	SOIL	11/7/2011	1.002	100	NONE	1	1111160
1111160-2	MSD	BKGD-E-31-111107	SOIL	11/7/2011	1.006	100	NONE	1	1111160
1111160-2	DUP	BKGD-E-31-111107	SOIL	11/7/2011	1.016	100	NONE	1	1111160
1111160-10	SMP	S12-34-31-111107	SOIL	11/7/2011	1.036	100	NONE	1	1111160
1111160-11	SMP	S12-34-32-111107	SOIL	11/7/2011	1.024	100	NONE	1	1111160
1111160-12	SMP	S12-35-31-111107	SOIL	11/7/2011	1.019	100	NONE	1	1111160
1111160-13	SMP	S12-52-31-111107	SOIL	11/7/2011	1.026	100	NONE	1	1111160
1111160-14	SMP	S12-56-31-111107	SOIL	11/7/2011	1.007	100	NONE	1	1111160
1111160-15	SMP	S12-64-31-111107	SOIL	11/7/2011	1.009	100	NONE	1	1111160
1111160-2	SMP	BKGD-E-31-111107	SOIL	11/7/2011	1.02	100	NONE	1	1111160
1111160-3	SMP	BKGD-N-31-111107	SOIL	11/7/2011	1.028	100	NONE	1	1111160
1111160-4	SMP	BKGD-S-31-111107	SOIL	11/7/2011	1.018	100	NONE	1	1111160
1111160-5	SMP	BKGD-W-31-111107	SOIL	11/7/2011	1.004	100	NONE	1	1111160
1111160-6	SMP	S12-12-31-111107	SOIL	11/7/2011	1.014	100	NONE	1	1111160
1111160-7	SMP	S12-14-31-111107	SOIL	11/7/2011	1.038	100	NONE	1	1111160
1111160-8	SMP	S12-22-31-111107	SOIL	11/7/2011	1.004	100	NONE	1	1111160
1111160-9	SMP	S12-33-31-111107	SOIL	11/7/2011	1.03	100	NONE	1	1111160

QC Types

CAR	Carrier reference sample	DUP	Laboratory Duplicate
LCS	Laboratory Control Sample	LCSD	Laboratory Control Sample Duplicate
MB	Method Blank	MS	Laboratory Matrix Spike
MSD	Laboratory Matrix Spike Duplicate	REP	Sample replicate
RVS	Reporting Level Verification Standar	SMP	Field Sample
SYS	Sample Yield Spike		

URANIUM
Method SW6020
Calibration Verifications

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Run ID: IM111118-10A1

Result Units: MG/L

Lab ID	Verification Type	Date Analyzed	Time Analyzed	Spike Added	Result	Reporting Limit	Result Qualifier	% Rec.	Control Limits
ICV	Initial Calibration	11/18/2011	11:52	0.002	0.00207	0.00001	N/A	104	90 - 110
CCV1	Continuing Calibration	11/18/2011	12:30	0.001	0.000997	0.00001	N/A	100	90 - 110
CCV2	Continuing Calibration	11/18/2011	13:43	0.001	0.00102	0.00001	N/A	102	90 - 110
CCV3	Continuing Calibration	11/18/2011	14:21	0.001	0.000990	0.00001	N/A	99	90 - 110
CCV4	Continuing Calibration	11/18/2011	14:51	0.001	0.00102	0.00001	N/A	102	90 - 110
CCV5	Continuing Calibration	11/18/2011	15:27	0.001	0.00105	0.00001	N/A	105	90 - 110
CCV6	Continuing Calibration	11/18/2011	16:00	0.001	0.00104	0.00001	N/A	104	90 - 110
CCV7	Continuing Calibration	11/18/2011	16:34	0.001	0.00103	0.00001	N/A	103	90 - 110

Data Package ID: *im1111160-1*

URANIUM
Method SW6020
Calibration Verifications

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Run ID: IM111121-10A1

Result Units: MG/L

Lab ID	Verification Type	Date Analyzed	Time Analyzed	Spike Added	Result	Reporting Limit	Result Qualifier	% Rec.	Control Limits
ICV	Initial Calibration	11/21/2011	11:08	0.002	0.00203	0.00001	N/A	102	90 - 110
CCV1	Continuing Calibration	11/21/2011	11:42	0.001	0.00101	0.00001	N/A	101	90 - 110
CCV2	Continuing Calibration	11/21/2011	12:08	0.001	0.00100	0.00001	N/A	100	90 - 110
CCV3	Continuing Calibration	11/21/2011	12:38	0.001	0.00101	0.00001	N/A	101	90 - 110
CCV4	Continuing Calibration	11/21/2011	13:05	0.001	0.000999	0.00001	N/A	100	90 - 110
CCV5	Continuing Calibration	11/21/2011	13:38	0.001	0.00102	0.00001	N/A	102	90 - 110
CCV6	Continuing Calibration	11/21/2011	14:08	0.001	0.00102	0.00001	N/A	102	90 - 110
CCV7	Continuing Calibration	11/21/2011	14:34	0.001	0.00103	0.00001	N/A	103	90 - 110
CCV8	Continuing Calibration	11/21/2011	15:15	0.001	0.00101	0.00001	N/A	101	90 - 110

Data Package ID: im1111160-1

URANIUM
Method SW6020
Calibration Blanks

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Run ID: IM111118-10A1

Result Units: MG/L

Lab ID	Verification Type	Date Analyzed	Time Analyzed	Result	Reporting Limit	Flag
ICB	Initial Calibration	11/18/2011	11:58	0.00001	0.00001	U
CCB1	Continuing Calibration	11/18/2011	12:32	0.00001	0.00001	U
CCB2	Continuing Calibration	11/18/2011	13:45	0.00001	0.00001	U
CCB3	Continuing Calibration	11/18/2011	14:23	0.00001	0.00001	U
CCB4	Continuing Calibration	11/18/2011	14:53	0.00001	0.00001	U
CCB5	Continuing Calibration	11/18/2011	15:38	0.00001	0.00001	U
CCB6	Continuing Calibration	11/18/2011	16:03	0.00001	0.00001	U
CCB7	Continuing Calibration	11/18/2011	16:37	0.00001	0.00001	U

Data Package ID: *im1111160-1*

Date Printed: Wednesday, November 30, 2011

ALS Environmental -- FC
LIMS Version: 6.543

Page 1 of 2

URANIUM
Method SW6020
Calibration Blanks

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Run ID: IM111121-10A1

Result Units: MG/L

Lab ID	Verification Type	Date Analyzed	Time Analyzed	Result	Reporting Limit	Flag
ICB	Initial Calibration	11/21/2011	11:14	0.00001	0.00001	U
CCB1	Continuing Calibration	11/21/2011	11:44	0.00001	0.00001	U
CCB2	Continuing Calibration	11/21/2011	12:10	0.00001	0.00001	U
CCB3	Continuing Calibration	11/21/2011	12:40	0.00001	0.00001	U
CCB4	Continuing Calibration	11/21/2011	13:07	0.00001	0.00001	U
CCB5	Continuing Calibration	11/21/2011	13:40	0.00001	0.00001	U
CCB6	Continuing Calibration	11/21/2011	14:10	0.00001	0.00001	U
CCB7	Continuing Calibration	11/21/2011	14:37	0.00001	0.00001	U
CCB8	Continuing Calibration	11/21/2011	15:17	0.00001	0.00001	U

Data Package ID: *im1111160-1*

Date Printed: Wednesday, November 30, 2011

ALS Environmental -- FC

Page 2 of 2

LIMS Version: 6.543

ICPMS Metals

Method SW6020

ICP Interference Check Sample

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Run ID: IM111118-10A1

Date Analyzed: 11/18/2011

Result Units: MG/L

CASNO	Target Analyte	Spike Added		Results		% Rec.
		ICSA1	ICSAB1	ICSA1	ICSAB1	
7440-61-1	URANIUM		0.001		0.00106	106

Data Package ID: *im1111160-1*

Date Printed: Wednesday, November 30, 2011

ALS Environmental -- FC

Page 1 of 2

LIMS Version: 6.543

ICPMS Metals
Method SW6020
ICP Interference Check Sample

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Run ID: IM111121-10A1

Date Analyzed: 11/21/2011

Result Units: MG/L

CASNO	Target Analyte	Spike Added		Results		% Rec.
		ICSA1	ICSAB1	ICSA1	ICSAB1	
7440-61-1	URANIUM		0.001		0.00103	103

Data Package ID: *im1111160-1*

Date Printed: Wednesday, November 30, 2011

ALS Environmental -- FC

Page 2 of 2

LIMS Version: 6.543

Metals Linear Ranges

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Instrument ID: ICPMS2

Active Date: 04/01/2010

Expiration Date: 04/01/2015

CASNO	Target Analyte	Concentration (ppm)
7429-90-5	ALUMINUM	50
7440-36-0	ANTIMONY	0.3
7440-38-2	ARSENIC	1
7440-39-3	BARIUM	1
7440-41-7	BERYLLIUM	0.5
7440-43-9	CADMIUM	0.3
7440-70-2	CALCIUM	500
7440-47-3	CHROMIUM	5
7440-48-4	COBALT	1
7440-50-8	COPPER	10
7439-89-6	IRON	50
7439-92-1	LEAD	0.5
7439-95-4	MAGNESIUM	100
7439-96-5	MANGANESE	2
7439-98-7	MOLYBDENUM	1
7440-02-0	NICKEL	5
7440-09-7	POTASSIUM	500
7782-49-2	SELENIUM	1
7440-22-4	SILVER	0.1
7440-23-5	SODIUM	1000
7440-28-0	THALLIUM	0.02
7440-31-5	TIN	5
7440-61-1	URANIUM	0.1
7440-62-2	VANADIUM	1
7440-66-6	ZINC	20

ICPMS2 Run Log -- 11/18/2011

Instrument ID: ICPMS2
 File Name: 003CALB_
 AnalRunID: IM111118-10A1
 CalibRefID: IM111118-10A1

Comment	Field ID	Lab ID	DF	Date Analyzed	Time Analyzed
		blank	1	11/18/2011	11:36
		H/1000	1	11/18/2011	11:38
		H/100	1	11/18/2011	11:41
		H/10	1	11/18/2011	11:43
		HIGH	1	11/18/2011	11:46
		ICV	1	11/18/2011	11:52
		ICB	1	11/18/2011	11:58
		CRI1	1	11/18/2011	12:01
		CRI2	1	11/18/2011	12:03
		ICSA1	1	11/18/2011	12:06
		ICSAB1	1	11/18/2011	12:08
		IP111116-5MB	10	11/18/2011	12:15
		IM111116-5LCS	10	11/18/2011	12:17
		1111041-23	10	11/18/2011	12:20
		1111067-35	10	11/18/2011	12:22
		1111086-38	10	11/18/2011	12:25
		1111037-3	10	11/18/2011	12:27
		CCV1	1	11/18/2011	12:30
		CCB1	1	11/18/2011	12:32
		1111037-3DUP	10	11/18/2011	12:35
		1111037-3SER	50	11/18/2011	12:37
		1111037-3MS	10	11/18/2011	12:41
		1111037-3MSD	10	11/18/2011	12:43
		1111038-1	10	11/18/2011	12:46
		1111038-2	10	11/18/2011	12:48
		1111040-1	10	11/18/2011	12:51
		1111040-3	10	11/18/2011	12:53
		1111040-4	10	11/18/2011	12:56
		1111040-5	10	11/18/2011	12:58
		CCV2	1	11/18/2011	13:43
		CCB2	1	11/18/2011	13:45
		1111078-35	10	11/18/2011	13:48
		1111040-7	10	11/18/2011	13:50
		1111051-1	10	11/18/2011	13:53
		1111051-2	10	11/18/2011	13:55

Data Package ID: IM1111160-1

ICPMS2 Run Log -- 11/18/2011

Instrument ID: ICPMS2
 File Name: 001SMPL_
 AnalRunID: IM111118-10A1
 CalibRefID: IM111118-10A1

Comment	Field ID	Lab ID	DF	Date Analyzed	Time Analyzed
		CCV3	1	11/18/2011	14:21
		CCB3	1	11/18/2011	14:23
		IP111116-4MB	10	11/18/2011	14:26
		IM111116-4	10	11/18/2011	14:28
		IM111116-4LCS	10	11/18/2011	14:31
		1111137-1	10	11/18/2011	14:33
		1111138-1	10	11/18/2011	14:36
		1111140-1	10	11/18/2011	14:38
	ALSW-01-111107	1111160-1	10	11/18/2011	14:41
		1111162-16	10	11/18/2011	14:43
		1111185-13	10	11/18/2011	14:46
		1111185-13DUP	10	11/18/2011	14:48
		CCV4	1	11/18/2011	14:51
		CCB4	1	11/18/2011	14:53
		1111185-13SER	50	11/18/2011	14:56
		1111185-13MS	10	11/18/2011	14:58
		1111185-13MSD	10	11/18/2011	15:01
		1111205-1	10	11/18/2011	15:03
		1111205-2	10	11/18/2011	15:06
		IP111117-3MB	10	11/18/2011	15:12
		IP111117-3LCS	10	11/18/2011	15:17
		1111005-1	10	11/18/2011	15:20
		1111005-2	10	11/18/2011	15:22
		1111005-2DUP	10	11/18/2011	15:25
		CCV5	1	11/18/2011	15:27
		CCB5	1	11/18/2011	15:38
		1111005-2SER	50	11/18/2011	15:41
		1111005-2MS	10	11/18/2011	15:43
		1111005-2MSD	10	11/18/2011	15:46
		1111005-3	10	11/18/2011	15:48
		1111005-4	10	11/18/2011	15:51
		1111005-5	10	11/18/2011	15:53
		1111005-6	10	11/18/2011	15:57
		CCV6	1	11/18/2011	16:00
		CCB6	1	11/18/2011	16:03

Data Package ID: IM1111160-1

ICPMS2 Run Log -- 11/18/2011

Instrument ID: ICPMS2
 File Name: 011SMPL.
 AnalRunID: IM111118-10A1
 CalibRefID: IM111118-10A1

Comment	Field ID	Lab ID	DF	Date Analyzed	Time Analyzed
		IP111117-1MB	10	11/18/2011	16:05
		IM111117-1	10	11/18/2011	16:08
		IM111117-1LCS	10	11/18/2011	16:10
	BKGD-E-31-111107	1111160-2	10	11/18/2011	16:13
	BKGD-E-31-111107	1111160-2DUP	10	11/18/2011	16:15
	BKGD-E-31-111107	1111160-2SER	50	11/18/2011	16:18
	BKGD-E-31-111107	1111160-2MS	10	11/18/2011	16:20
	BKGD-E-31-111107	1111160-2MSD	10	11/18/2011	16:23
	BKGD-E-31-111107	1111160-2A	10	11/18/2011	16:25
	BKGD-N-31-111107	1111160-3	10	11/18/2011	16:28
		CCV7	1	11/18/2011	16:34
		CCB7	1	11/18/2011	16:37
		ZZZZZZ	1	11/18/2011	16:39
		ZZZZZZ	1	11/18/2011	16:42
		ZZZZZZ	1	11/18/2011	16:44
		ZZZZZZ	1	11/18/2011	16:47
		ZZZZZZ	1	11/18/2011	16:49
		ZZZZZZ	1	11/18/2011	16:52
		ZZZZZZ	1	11/18/2011	16:54
		ZZZZZZ	1	11/18/2011	16:57
		ZZZZZZ	1	11/18/2011	16:59
		ZZZZZZ	1	11/18/2011	17:02
		CCV8	1	11/18/2011	17:08
		CCB8	1	11/18/2011	17:10
		ZZZZZZ	1	11/18/2011	17:13
		ZZZZZZ	1	11/18/2011	17:16
		ZZZZZZ	1	11/18/2011	17:22
		IM111117-2	10	11/18/2011	17:24
		IM111117-2LCS	10	11/18/2011	17:27
		ZZZZZZ	1	11/18/2011	17:29
		ZZZZZZ	1	11/18/2011	17:32
		ZZZZZZ	1	11/18/2011	17:34
		ZZZZZZ	1	11/18/2011	17:37
		ZZZZZZ	1	11/18/2011	17:39
		CCV9	1	11/18/2011	17:46

Data Package ID: IM1111160-1

ICPMS2 Run Log -- 11/18/2011

Instrument ID: ICPMS2
 File Name: 046SMPL.
 AnalRunID: IM111118-10A1
 CalibRefID: IM111118-10A1

Comment	Field ID	Lab ID	DF	Date Analyzed	Time Analyzed
		CCB9	1	11/18/2011	17:48
		ZZZZZ	1	11/18/2011	17:51
		1111162-2	10	11/18/2011	17:53
		1111162-3	10	11/18/2011	17:56
		1111162-4	10	11/18/2011	17:58
		1111162-5	10	11/18/2011	18:01
		1111162-6	10	11/18/2011	18:03
		1111162-7	10	11/18/2011	18:06
		1111162-8	10	11/18/2011	18:08
		1111162-9	10	11/18/2011	18:11
		1111162-10	10	11/18/2011	18:13
		CCV10	1	11/18/2011	18:20
		CCB10	1	11/18/2011	18:22
		1111162-11	10	11/18/2011	18:25
		1111162-12	10	11/18/2011	18:27
		1111162-13	10	11/18/2011	18:30
		1111162-14	10	11/18/2011	18:32
		1111162-15	10	11/18/2011	18:35
- As,Se		1110371-1	50	11/18/2011	18:37
- As,Se		1111008-1	50	11/18/2011	18:40
- As,Se		1111008-2	50	11/18/2011	18:43
		CCV11	1	11/18/2011	18:49
		CCB11	1	11/18/2011	18:51
Ag,Al,Ba,Cd,Cr,Cu,Mo,Pb,Sb,Th,Tl,U,V		1110371-1	50	11/18/2011	18:54
Ag,Al,Ba,Cd,Cr,Cu,Mo,Pb,Sb,Th,Tl,U,V		1111008-1	50	11/18/2011	18:56
Ag,Al,Ba,Cd,Cr,Cu,Mo,Pb,Sb,Th,Tl,U,V		1111008-2	50	11/18/2011	18:59
		EX111117-4MB	10	11/18/2011	19:05
		EX111117-4	10	11/18/2011	19:08
		EX111117-4LCS	10	11/18/2011	19:10
		1111165-21	200	11/18/2011	19:13
		1111165-21DUP	200	11/18/2011	19:15
		1111165-21SER	1000	11/18/2011	19:18
		1111165-21MS	200	11/18/2011	19:21
		CCV12	1	11/18/2011	19:27
		CCB12	1	11/18/2011	19:29

Data Package ID: IM1111160-1

ICPMS2 Run Log -- 11/18/2011

Instrument ID: ICPMS2
File Name: 081SMPL.
AnalRunID: IM111118-10A1
CalibRefID: IM111118-10A1

Comment	Field ID	Lab ID	DF	Date Analyzed	Time Analyzed
		1111165-21MSD	200	11/18/2011	19:32
		1111165-22	200	11/18/2011	19:34
		1111167-11	200	11/18/2011	19:37
		1111167-12	200	11/18/2011	19:40
		1111167-13	200	11/18/2011	19:42
		IP111117-2MB	10	11/18/2011	19:48
		CCV13	1	11/18/2011	19:51
		CCB13	1	11/18/2011	19:53

Data Package ID: IM1111160-1

ICPMS2 Run Log -- 11/21/2011

Instrument ID: ICPMS2
 File Name: 003CALB.
 AnalRunID: IM111121-10A1
 CalibRefID: IM111121-10A1

Comment	Field ID	Lab ID	DF	Date Analyzed	Time Analyzed
		blank	1	11/21/2011	10:54
		H/1000	1	11/21/2011	10:56
		H/100	1	11/21/2011	10:58
		H/10	1	11/21/2011	11:00
		HIGH	1	11/21/2011	11:03
		ICV	1	11/21/2011	11:08
		ICB	1	11/21/2011	11:14
		CRI1	1	11/21/2011	11:16
		CRI2	1	11/21/2011	11:19
		ICSA1	1	11/21/2011	11:21
		ICSAB1	1	11/21/2011	11:23
		IP111118-2MB	10	11/21/2011	11:29
		IM111118-2	10	11/21/2011	11:31
		IM111118-2LCS	10	11/21/2011	11:33
		1111071-1	10	11/21/2011	11:35
		1111071-1DUP	10	11/21/2011	11:38
		1111071-1SER	50	11/21/2011	11:40
		CCV1	1	11/21/2011	11:42
		CCB1	1	11/21/2011	11:44
		1111071-1MS	10	11/21/2011	11:46
		1111071-1MSD	10	11/21/2011	11:49
		1111260-1	10	11/21/2011	11:51
		1111170-1	10	11/21/2011	11:53
		1111171-1	10	11/21/2011	11:55
		1111173-1	10	11/21/2011	11:57
		1111174-1	10	11/21/2011	11:59
		1111180-1	10	11/21/2011	12:02
		1111181-1	10	11/21/2011	12:04
		1111182-1	10	11/21/2011	12:06
		CCV2	1	11/21/2011	12:08
		CCB2	1	11/21/2011	12:10
		1111183-1	10	11/21/2011	12:13
		1111207-1	10	11/21/2011	12:15
		1111209-1	10	11/21/2011	12:17
		1111210-1	10	11/21/2011	12:19

Data Package ID: IM1111160-1

ICPMS2 Run Log -- 11/21/2011

Instrument ID: ICPMS2
File Name: 038SMPL.
AnalRunID: IM111121-10A1
CalibRefID: IM111121-10A1

Comment	Field ID	Lab ID	DF	Date Analyzed	Time Analyzed
		1111232-1	10	11/21/2011	12:21
		1111233-1	10	11/21/2011	12:23
		1111234-1	10	11/21/2011	12:26
		1111235-1	10	11/21/2011	12:28
		1111261-1	10	11/21/2011	12:30
		1111104-1	10	11/21/2011	12:32
		CCV3	1	11/21/2011	12:38
		CCB3	1	11/21/2011	12:40
		IP1111118-3MB	10	11/21/2011	12:43
		IM1111118-3	10	11/21/2011	12:45
		IM1111118-3LCS	10	11/21/2011	12:47
		1111106-22	10	11/21/2011	12:49
		1111106-22DUP	10	11/21/2011	12:51
		1111106-22SER	50	11/21/2011	12:53
		1111106-22MS	10	11/21/2011	12:56
		1111106-22MSD	10	11/21/2011	12:58
		1111172-1	10	11/21/2011	13:00
		1111172-2	10	11/21/2011	13:02
		CCV4	1	11/21/2011	13:05
		CCB4	1	11/21/2011	13:07
		1111172-3	10	11/21/2011	13:09
		1111172-4	10	11/21/2011	13:11
		1111172-6	10	11/21/2011	13:13
		1111172-10	10	11/21/2011	13:15
		1111172-5	10	11/21/2011	13:18
		1111134-1	10	11/21/2011	13:24
		1111134-2	10	11/21/2011	13:26
		1111134-3	10	11/21/2011	13:28
		1111161-1	10	11/21/2011	13:30
		1111161-2	10	11/21/2011	13:32
		CCV5	1	11/21/2011	13:38
		CCB5	1	11/21/2011	13:40
		1111161-3	10	11/21/2011	13:43
		1111161-4	10	11/21/2011	13:45
		IP1111117-2MB	10	11/21/2011	13:51

Data Package ID: IM1111160-1

ICPMS2 Run Log -- 11/21/2011

Instrument ID: ICPMS2
 File Name: 073SMPL.
 AnalRunID: IM111121-10A1
 CalibRefID: IM111121-10A1

Comment	Field ID	Lab ID	DF	Date Analyzed	Time Analyzed
		IM111117-2LCS	10	11/21/2011	13:53
		1111162-1	10	11/21/2011	13:55
		1111162-1DUP	10	11/21/2011	13:57
		1111162-1SER	50	11/21/2011	13:59
		1111162-1MS	10	11/21/2011	14:02
		1111162-1MSD	10	11/21/2011	14:04
	BKGD-S-31-111107	1111160-4	10	11/21/2011	14:06
		CCV6	1	11/21/2011	14:08
		CCB6	1	11/21/2011	14:10
	BKGD-W-31-111107	1111160-5	10	11/21/2011	14:13
	S12-12-31-111107	1111160-6	100	11/21/2011	14:15
	S12-14-31-111107	1111160-7	100	11/21/2011	14:17
	S12-22-31-111107	1111160-8	100	11/21/2011	14:19
	S12-33-31-111107	1111160-9	200	11/21/2011	14:21
	S12-34-31-111107	1111160-10	200	11/21/2011	14:23
	S12-34-32-111107	1111160-11	200	11/21/2011	14:26
	S12-35-31-111107	1111160-12	1000	11/21/2011	14:28
	S12-52-31-111107	1111160-13	100	11/21/2011	14:30
	S12-56-31-111107	1111160-14	100	11/21/2011	14:32
		CCV7	1	11/21/2011	14:34
		CCB7	1	11/21/2011	14:37
	S12-64-31-111107	1111160-15	100	11/21/2011	14:39
		1111136-1	10	11/21/2011	14:51
		1111136-1SER	50	11/21/2011	14:54
		1111136-1MS	10	11/21/2011	14:56
		1111136-1MSD	10	11/21/2011	14:58
		1111136-2	10	11/21/2011	15:00
		1111136-3	10	11/21/2011	15:02
		1111136-4	10	11/21/2011	15:04
		1111136-5	50	11/21/2011	15:07
		1111136-6	10	11/21/2011	15:09
		CCV8	1	11/21/2011	15:15
		CCB8	1	11/21/2011	15:17
		1111136-7	10	11/21/2011	15:19
		1111136-8	10	11/21/2011	15:21

Data Package ID: IM1111160-1

ICPMS2 Run Log -- 11/21/2011

Instrument ID: ICPMS2
 File Name: 014SMPL_
 AnalRunID: IM111121-10A1
 CalibRefID: IM111121-10A1

Comment	Field ID	Lab ID	DF	Date Analyzed	Time Analyzed
		1111136-9	10	11/21/2011	15:23
		1111136-10	10	11/21/2011	15:26
		1111136-11	10	11/21/2011	15:28
		1111136-12	10	11/21/2011	15:30
		1111136-13	10	11/21/2011	15:32
		1111136-14	10	11/21/2011	15:34
		1111228-1	100	11/21/2011	15:37
		1111228-2	10	11/21/2011	15:39
		CCV9	1	11/21/2011	15:45
		CCB9	1	11/21/2011	15:48
		1111228-2SER	50	11/21/2011	15:50
		1111228-2MS	10	11/21/2011	15:53
		1111228-2MSD	10	11/21/2011	15:55
		1111228-3	10	11/21/2011	15:57
		1111228-4	200	11/21/2011	15:59
		1111228-5	100	11/21/2011	16:01
		1111228-6	10	11/21/2011	16:03
		1111228-7	10	11/21/2011	16:06
		1111228-8	50	11/21/2011	16:08
		1111228-9	200	11/21/2011	16:10
		CCV10	1	11/21/2011	16:16
		CCB10	1	11/21/2011	16:18
		1111228-10	10	11/21/2011	16:20
		1111228-11	10	11/21/2011	16:22
		1111228-12	10	11/21/2011	16:25
		1111228-13	100	11/21/2011	16:27
		1111228-14	200	11/21/2011	16:29
		CCV11	1	11/21/2011	16:35
		CCB11	1	11/21/2011	16:37

Data Package ID: IM1111160-1

Mercury

Method SW7470A

Method Blank

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Lab ID: HG111115-2MB

Sample Matrix: WATER	Prep Batch: HG111115-2	Sample Aliquot: 20g
% Moisture: N/A	QC Batch ID: HG111115-2-1	Final Volume: 20g
Date Collected: N/A	Run ID: HG111117-1A1	Result Units: MG/L
Date Extracted: 15-Nov-11	Cleanup: NONE	Clean DF: 1
Date Analyzed: 17-Nov-11	Basis: N/A	
Prep Method: METHOD	File Name: HG111115-2	

CASNO	Target Analyte	DF	Result	Reporting Limit	Result Qualifier	EPA Qualifier
7439-97-6	MERCURY	1	0.0002	0.0002	U	

Data Package ID: hg1111160-1

Mercury

Method SW7471A

Method Blank

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Lab ID: HG111118-1MB	Sample Matrix: SOIL % Moisture: N/A Date Collected: N/A Date Extracted: 18-Nov-11 Date Analyzed: 22-Nov-11 Prep Method: METHOD	Prep Batch: HG111118-1 QCBatchID: HG111118-1-1 Run ID: HG111122-1A1 Cleanup: NONE Basis: N/A File Name: HG111118-1	Sample Aliquot: 0.6g Final Volume: 100g Result Units: MG/KG Clean DF: 1
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CASNO	Target Analyte	DF	Result	Reporting Limit	Result Qualifier	EPA Qualifier
7439-97-6	MERCURY	1	0.033	0.033	U	

Data Package ID: *hg1111160-1*

Mercury

Method SW7470A

Laboratory Control Sample

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

<div style="border: 1px solid black; padding: 2px;">Lab ID: HG111115-2LCS</div>	Sample Matrix: WATER % Moisture: N/A Date Collected: N/A Date Extracted: 11/15/2011 Date Analyzed: 11/17/2011 Prep Method: METHOD	Prep Batch: HG111115-2 QCBatchID: HG111115-2-1 Run ID: HG111117-1A1 Cleanup: NONE Basis: N/A File Name: HG111115-2	Sample Aliquot: 20g Final Volume: 20g Result Units: MG/L Clean DF: 1
---	--	---	---

CASNO	Target Analyte	Spike Added	LCS Result	Reporting Limit	Result Qualifier	LCS % Rec.	Control Limits
7439-97-6	MERCURY	0.001	0.00102	0.0002		102	80 - 120%

Data Package ID: *hg1111160-1*

Mercury

Method SW7471

Laboratory Control Sample

Lab Name: ALS Environmental – FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Lab ID: HG111118-1LCS

Sample Matrix: SOIL	Prep Batch: HG111118-1	Sample Aliquot: 0.6g
% Moisture: N/A	QCBatchID: HG111118-1-1	Final Volume: 100g
Date Collected: N/A	Run ID: HG111122-1A1	Result Units: MG/KG
Date Extracted: 11/18/2011	Cleanup: NONE	Clean DF: 1
Date Analyzed: 11/22/2011	Basis: N/A	
Prep Method: METHOD	File Name: HG111118-1	

CASNO	Target Analyte	Spike Added	LCS Result	Reporting Limit	Result Qualifier	LCS % Rec.	Control Limits
7439-97-6	MERCURY	0.167	0.16	0.0333		96	80 - 120%

Data Package ID: hg1111160-1

Mercury

Method SW7471A

Matrix Spike And Matrix Spike Duplicate

Lab Name: ALS Environmental -- FC
Work Order Number: 1111160
Client Name: Weston Solutions, Inc.
ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Field ID: BKGD-N-31-111107 LabID: 1111160-3MS	Sample Matrix: SOIL % Moisture: 6.6 Date Collected: 07-Nov-11 Date Extracted: 18-Nov-11 Date Analyzed: 22-Nov-11 Prep Method: METHOD	Prep Batch: HG111118-1 QCBatchID: HG111118-1-1 Run ID: HG111122-1A1 Cleanup: NONE Basis: Dry Weight	Sample Aliquot: 0.608 g Final Volume: 100 g Result Units: MG/KG File Name: HG111118-1
--	---	--	--

CASNO	Target Analyte	Sample Result	Samp Qual	MS Result	MS Qual	Reporting Limit	Spike Added	MS % Rec.	Control Limits
7439-97-6	MERCURY	0.035	U	0.375		0.0352	0.352	107	80 - 120%

Field ID: BKGD-N-31-111107 LabID: 1111160-3MSD	Sample Matrix: SOIL % Moisture: 6.6 Date Collected: 07-Nov-11 Date Extracted: 18-Nov-11 Date Analyzed: 22-Nov-11 Prep Method: METHOD	Prep Batch: HG111118-1 QCBatchID: HG111118-1-1 Run ID: HG111122-1A1 Cleanup: NONE Basis: Dry Weight	Sample Aliquot: 0.614 g Final Volume: 100 g Result Units: MG/KG File Name: HG111118-1
---	---	--	--

CASNO	Target Analyte	MSD Result	MSD Qual	Spike Added	MSD % Rec.	Reporting Limit	RPD Limit	RPD
7439-97-6	MERCURY	0.368		0.349	106	0.0349	20	2

Data Package ID: hg1111160-1

Mercury

Method SW7471

Duplicate Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Field ID: BKGD-N-31-111107 Lab ID: 1111160-3D	Sample Matrix: SOIL % Moisture: 6.6 Date Collected: 11/07/2011 Date Extracted: 11/18/2011 Date Analyzed: 11/22/2011	Prep Batch: HG111118-1 QCBatchID: HG111118-1-1 Run ID: HG111122-1A1 Cleanup: NONE Basis: Dry Weight File Name: HG111118-1	Sample Aliquot: 0.607g Final Volume: 100g Result Units: MG/KG Clean DF: 1
--	--	--	--

CASNO	Target Analyte	Sample Result	Samp Qual	Duplicate Result	Dup Qual	Reporting Limit	Dilution Factor	RPD	RPD Limit
7439-97-6	MERCURY	0.035	U	0.0353	U	0.0353	1		20

Data Package ID: hg1111160-1

Prep Batch ID: HG111115-2

Start Date: 11/15/11

End Date: 11/15/11

Concentration Method: NONE

Batch Created By: skl

Start Time: 9:58

End Time: 9:58

Extract Method: METHOD

Date Created: 11/15/11

Prep Analyst: Sheri Lafferty

Initial Volume Units: g

Time Created: 9:59

Comments:

Final Volume Units: g

Validated By: skl

Date Validated: 11/15/11

Time Validated: 12:06

QC Batch ID: HG111115-2-1

Lab ID	QC Type	Field ID	Matrix	Date Collected	Initial Wt/Vol	Final Wt/Vol	Cleanup Method	Cleanup DF	Order Number
HG111115-2	MB	XXXXXX	WATER	XXXXXX	20	20	NONE	1	1111106
HG111115-2	LCS	XXXXXX	WATER	XXXXXX	20	20	NONE	1	1111106
HG111115-2	LCSD	XXXXXX	WATER	XXXXXX	20	20	NONE	1	1111106
1111106-22	MS	XXXXXX	WATER	XXXXXX	20	20	NONE	1	1111106
1111106-22	MSD	XXXXXX	WATER	XXXXXX	20	20	NONE	1	1111106
1111106-22	DUP	XXXXXX	WATER	XXXXXX	20	20	NONE	1	1111106
1111093-1	SMP	XXXXXX	WATER	XXXXXX	20	20	NONE	1	1111093
1111093-3	SMP	XXXXXX	WATER	XXXXXX	20	20	NONE	1	1111093
1111106-22	SMP	XXXXXX	WATER	XXXXXX	20	20	NONE	1	1111106
1111106-35	SMP	XXXXXX	WATER	XXXXXX	20	20	NONE	1	1111106
1111106-48	SMP	XXXXXX	WATER	XXXXXX	20	20	NONE	1	1111106
1111106-61	SMP	XXXXXX	WATER	XXXXXX	20	20	NONE	1	1111106
1111111-1	SMP	XXXXXX	WATER	XXXXXX	20	20	NONE	1	1111111
1111125-24	SMP	XXXXXX	WATER	XXXXXX	20	20	NONE	1	1111125
1111125-37	SMP	XXXXXX	WATER	XXXXXX	20	20	NONE	1	1111125
1111125-50	SMP	XXXXXX	WATER	XXXXXX	20	20	NONE	1	1111125
1111125-63	SMP	XXXXXX	WATER	XXXXXX	20	20	NONE	1	1111125
1111125-76	SMP	XXXXXX	WATER	XXXXXX	20	20	NONE	1	1111125
1111152-1	SMP	XXXXXX	WATER	XXXXXX	20	20	NONE	1	1111152
1111152-2	SMP	XXXXXX	WATER	XXXXXX	20	20	NONE	1	1111152
1111153-1	SMP	XXXXXX	WATER	XXXXXX	20	20	NONE	1	1111153
1111153-2	SMP	XXXXXX	WATER	XXXXXX	20	20	NONE	1	1111153
1111153-3	SMP	XXXXXX	WATER	XXXXXX	20	20	NONE	1	1111153
1111155-1	SMP	XXXXXX	WATER	XXXXXX	20	20	NONE	1	1111155
1111157-1	SMP	XXXXXX	WATER	XXXXXX	20	20	NONE	1	1111157
1111160-1	SMP	ALSW-01-111107	WATER	11/7/2011	20	20	NONE	1	1111160

Prep Batch ID: HG111118-1

Start Date: 11/18/11	End Date: 11/18/11	Concentration Method: NONE	Batch Created By: skl
Start Time: 14:51	End Time: 14:51	Extract Method: METHOD	Date Created: 11/17/11
Prep Analyst: Sheri Lafferty		Initial Volume Units: g	Time Created: 14:52
Comments:		Final Volume Units: g	Validated By: skl
			Date Validated: 11/18/11
			Time Validated: 9:15

QC Batch ID: HG111118-1-1

Lab ID	QC Type	Field ID	Matrix	Date Collected	Initial Wt/Vol	Final Wt/Vol	Cleanup Method	Cleanup DF	Order Number
HG111118-1	MB	XXXXXX	SOIL	XXXXXX	0.6	100	NONE	1	1111160
HG111118-1	LCS	XXXXXX	SOIL	XXXXXX	0.6	100	NONE	1	1111160
1111160-3	MS	BKGD-N-31-111107	SOIL	11/7/2011	0.608	100	NONE	1	1111160
1111160-3	MSD	BKGD-N-31-111107	SOIL	11/7/2011	0.614	100	NONE	1	1111160
1111160-3	DUP	BKGD-N-31-111107	SOIL	11/7/2011	0.607	100	NONE	1	1111160
1111160-10	SMP	S12-34-31-111107	SOIL	11/7/2011	0.606	100	NONE	1	1111160
1111160-11	SMP	S12-34-32-111107	SOIL	11/7/2011	0.602	100	NONE	1	1111160
1111160-12	SMP	S12-35-31-111107	SOIL	11/7/2011	0.615	100	NONE	1	1111160
1111160-13	SMP	S12-52-31-111107	SOIL	11/7/2011	0.611	100	NONE	1	1111160
1111160-14	SMP	S12-56-31-111107	SOIL	11/7/2011	0.614	100	NONE	1	1111160
1111160-15	SMP	S12-64-31-111107	SOIL	11/7/2011	0.603	100	NONE	1	1111160
1111160-2	SMP	BKGD-E-31-111107	SOIL	11/7/2011	0.609	100	NONE	1	1111160
1111160-3	SMP	BKGD-N-31-111107	SOIL	11/7/2011	0.612	100	NONE	1	1111160
1111160-4	SMP	BKGD-S-31-111107	SOIL	11/7/2011	0.605	100	NONE	1	1111160
1111160-5	SMP	BKGD-W-31-111107	SOIL	11/7/2011	0.613	100	NONE	1	1111160
1111160-6	SMP	S12-12-31-111107	SOIL	11/7/2011	0.614	100	NONE	1	1111160
1111160-7	SMP	S12-14-31-111107	SOIL	11/7/2011	0.61	100	NONE	1	1111160
1111160-8	SMP	S12-22-31-111107	SOIL	11/7/2011	0.61	100	NONE	1	1111160
1111160-9	SMP	S12-33-31-111107	SOIL	11/7/2011	0.611	100	NONE	1	1111160

QC Types

CAR	Carrier reference sample	DUP	Laboratory Duplicate
LCS	Laboratory Control Sample	LCSD	Laboratory Control Sample Duplicate
MB	Method Blank	MS	Laboratory Matrix Spike
MSD	Laboratory Matrix Spike Duplicate	REP	Sample replicate
RVS	Reporting Level Verification Standar	SMP	Field Sample
SYS	Sample Yield Spike		

MERCURY
Method SW7470
Calibration Verifications

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Run ID: HG111117-1A1

Result Units: MG/L

Lab ID	Verification Type	Date Analyzed	Time Analyzed	Spike Added	Result	Reporting Limit	Result Qualifier	% Rec.	Control Limits
ICV	Initial Calibration	11/17/2011	10:30	0.001	0.00101	0.0002	N/A	101	90 - 110
CCV1	Continuing Calibration	11/17/2011	10:56	0.002	0.00195	0.0002	N/A	97	80 - 120
CCV2	Continuing Calibration	11/17/2011	11:22	0.002	0.00200	0.0002	N/A	100	80 - 120

Data Package ID: hg1111160-1

Date Printed: Wednesday, November 30, 2011

ALS Environmental -- FC

Page 1 of 2

LIMS Version: 6.543

MERCURY
Method SW7471
Calibration Verifications

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Run ID: HG111122-1A1

Result Units: MG/L

Lab ID	Verification Type	Date Analyzed	Time Analyzed	Spike Added	Result	Reporting Limit	Result Qualifier	% Rec.	Control Limits
ICV	Initial Calibration	11/22/2011	8:38	0.001	0.00101	0.0002	N/A	101	90 - 110
CCV1	Continuing Calibration	11/22/2011	9:04	0.002	0.00201	0.0002	N/A	100	80 - 120
CCV2	Continuing Calibration	11/22/2011	9:30	0.002	0.00201	0.0002	N/A	100	80 - 120
CCV3	Continuing Calibration	11/22/2011	9:55	0.002	0.00201	0.0002	N/A	100	80 - 120

Data Package ID: hg1111160-1

Date Printed: Wednesday, November 30, 2011

ALS Environmental -- FC

LIMS Version: 6.543

Page 2 of 2

MERCURY
Method SW7470
Calibration Blanks

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Run ID: HG111117-1A1

Result Units: MG/L

Lab ID	Verification Type	Date Analyzed	Time Analyzed	Result	Reporting Limit	Flag
ICB	Initial Calibration	11/17/2011	10:32	0.0002	0.0002	U
CCB1	Continuing Calibration	11/17/2011	10:58	0.0002	0.0002	U
CCB2	Continuing Calibration	11/17/2011	11:24	0.0002	0.0002	U

Data Package ID: hg1111160-1

MERCURY
Method SW7471
Calibration Blanks

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Run ID: HG111122-1A1

Result Units: MG/L

Lab ID	Verification Type	Date Analyzed	Time Analyzed	Result	Reporting Limit	Flag
ICB	Initial Calibration	11/22/2011	8:41	0.0002	0.0002	U
CCB1	Continuing Calibration	11/22/2011	9:06	0.0002	0.0002	U
CCB2	Continuing Calibration	11/22/2011	9:32	0.0002	0.0002	U
CCB3	Continuing Calibration	11/22/2011	9:58	0.0002	0.0002	U

Data Package ID: hg1111160-1

Metals Linear Ranges

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Instrument ID: CETAC7500

Active Date: 07/19/2010

Expiration Date: 10/17/2020

CASNO	Target Analyte	Concentration (ppm)
7439-97-6	MERCURY	0.01

Mercury Run Log -- 11/17/2011

Instrument ID: CETAC7500
 File Name: HG111115-2
 AnalRunID: HG111117-1A1
 CalibRefID: HG111117-1A1

Comment	Field ID	Lab ID	DF	Date Analyzed	Time Analyzed
		STD0	1	11/17/2011	10:15
		STD1	1	11/17/2011	10:17
		STD2	1	11/17/2011	10:19
		STD3	1	11/17/2011	10:21
		STD4	1	11/17/2011	10:24
		STD5	1	11/17/2011	10:26
		STD6	1	11/17/2011	10:28
		ICV	1	11/17/2011	10:30
		ICB	1	11/17/2011	10:32
		CRA1	1	11/17/2011	10:34
		HG111115-2MB	1	11/17/2011	10:37
		HG111115-2LCS	1	11/17/2011	10:39
		HG111115-2LCSD	1	11/17/2011	10:41
		1111157-1	1	11/17/2011	10:43
		1111093-1	1	11/17/2011	10:45
		1111093-3	1	11/17/2011	10:47
		1111106-22	1	11/17/2011	10:49
		1111106-22DUP	1	11/17/2011	10:52
		1111106-22L	5	11/17/2011	10:54
		CCV1	1	11/17/2011	10:56
		CCB1	1	11/17/2011	10:58
		1111106-22MS	1	11/17/2011	11:00
		1111106-22MSD	1	11/17/2011	11:02
		1111106-35	1	11/17/2011	11:04
		1111106-48	1	11/17/2011	11:07
		1111106-61	1	11/17/2011	11:09
		1111111-1	1	11/17/2011	11:11
	ALSW-01-111107	1111160-1	1	11/17/2011	11:13
		1111125-24	1	11/17/2011	11:15
		1111125-37	1	11/17/2011	11:17
		1111125-50	1	11/17/2011	11:19
		CCV2	1	11/17/2011	11:22
		CCB2	1	11/17/2011	11:24
		1111125-63	1	11/17/2011	11:26
		1111125-76	1	11/17/2011	11:28

Data Package ID: HG1111160-1

Mercury Run Log -- 11/17/2011

Instrument ID: CETAC7500
File Name: HG111115-2
AnalRunID: HG111117-1A1
CalibRefID: HG111117-1A1

Comment	Field ID	Lab ID	DF	Date Analyzed	Time Analyzed
		1111152-1	1	11/17/2011	11:30
		1111152-2	1	11/17/2011	11:32
		1111153-1	1	11/17/2011	11:34
		1111153-2	1	11/17/2011	11:37
		1111153-3	1	11/17/2011	11:39
		1111155-1	1	11/17/2011	11:42
		1111153-3	2	11/17/2011	11:47
		CRA2	1	11/17/2011	11:49
		CCV3	1	11/17/2011	11:51
		CCB3	1	11/17/2011	11:53

Data Package ID: HG1111160-1

Mercury Run Log -- 11/22/2011

Instrument ID: CETAC7500
 File Name: HG111118-1
 AnalRunID: HG111122-1A1
 CalibRefID: HG111122-1A1

Comment	Field ID	Lab ID	DF	Date Analyzed	Time Analyzed
		STD0	1	11/22/2011	8:23
		STD1	1	11/22/2011	8:25
		STD2	1	11/22/2011	8:27
		STD3	1	11/22/2011	8:30
		STD4	1	11/22/2011	8:32
		STD5	1	11/22/2011	8:34
		STD6	1	11/22/2011	8:36
		ICV	1	11/22/2011	8:38
		ICB	1	11/22/2011	8:41
		CRA1	1	11/22/2011	8:43
		HG111118-1MB	1	11/22/2011	8:45
		HG111118-1LCS	1	11/22/2011	8:47
		HG111118-2MB	1	11/22/2011	8:49
		HG111118-2LCS	1	11/22/2011	8:51
	BKGD-E-31-111107	1111160-2	1	11/22/2011	8:53
	BKGD-N-31-111107	1111160-3	1	11/22/2011	8:55
	BKGD-N-31-111107	1111160-3DUP	1	11/22/2011	8:58
		1111160-3L	5	11/22/2011	9:00
	BKGD-N-31-111107	1111160-3MS	1	11/22/2011	9:02
		CCV1	1	11/22/2011	9:04
		CCB1	1	11/22/2011	9:06
	BKGD-N-31-111107	1111160-3MSD	1	11/22/2011	9:08
	BKGD-S-31-111107	1111160-4	1	11/22/2011	9:11
	BKGD-W-31-111107	1111160-5	1	11/22/2011	9:13
	S12-12-31-111107	1111160-6	1	11/22/2011	9:15
	S12-14-31-111107	1111160-7	1	11/22/2011	9:17
	S12-22-31-111107	1111160-8	1	11/22/2011	9:19
	S12-33-31-111107	1111160-9	1	11/22/2011	9:21
	S12-34-31-111107	1111160-10	1	11/22/2011	9:23
	S12-34-32-111107	1111160-11	1	11/22/2011	9:25
	S12-35-31-111107	1111160-12	1	11/22/2011	9:28
		CCV2	1	11/22/2011	9:30
		CCB2	1	11/22/2011	9:32
	S12-52-31-111107	1111160-13	1	11/22/2011	9:34
	S12-56-31-111107	1111160-14	1	11/22/2011	9:36

Data Package ID: HG1111160-1

Mercury Run Log -- 11/22/2011

Instrument ID: CETAC7500
File Name: HG111118-1
AnalRunID: HG111122-1A1
CalibRefID: HG111122-1A1

Comment	Field ID	Lab ID	DF	Date Analyzed	Time Analyzed
	S12-64-31-111107	1111160-15	1	11/22/2011	9:38
		1111162-1	1	11/22/2011	9:40
		1111162-1DUP	1	11/22/2011	9:43
		1111162-1L	5	11/22/2011	9:45
		1111162-1MS	1	11/22/2011	9:47
		1111162-1MSD	1	11/22/2011	9:49
		1111162-2	1	11/22/2011	9:51
		1111162-3	1	11/22/2011	9:53
		CCV3	1	11/22/2011	9:55
		CCB3	1	11/22/2011	9:58
		1111162-4	1	11/22/2011	10:00
		1111162-5	1	11/22/2011	10:02
		1111162-6	1	11/22/2011	10:04
		1111162-7	1	11/22/2011	10:06
		1111162-8	1	11/22/2011	10:08
		1111162-9	1	11/22/2011	10:10
		1111162-10	1	11/22/2011	10:13
		1111162-11	1	11/22/2011	10:15
		1111162-12	1	11/22/2011	10:17
		1111162-13	1	11/22/2011	10:19
		CCV4	1	11/22/2011	10:21
		CCB4	1	11/22/2011	10:23
		1111162-14	1	11/22/2011	10:25
		1111162-15	1	11/22/2011	10:28
		CRA2	1	11/22/2011	10:30
		CCV5	1	11/22/2011	10:32
		CCB5	1	11/22/2011	10:34

Data Package ID: HG1111160-1



Raw Data

HEADER INFORMATION FOR ANALYTICAL SEQUENCE 111117A

Analyst: Michael Lundgreen

STANDARD SOLUTION CODES

Stock A (ST110701-1) Exp. 6-30-2012

<u>Element</u>		<u>ug/ml</u>
Al, Ca, Mg		1000
K		500
Na		300
Fe		400
Li		20
<u>Standard</u>	<u>Dilution</u>	<u>Procedure</u>
A1	1/2 of Stock A	5ml of Stock A to 10ml final volume.
A2	1/2.5 of Stock A	2ml of Stock A to a 5ml final volume.
A3	1/5 of Stock A	1ml of Stock A to a 5ml final volume.
A4	1/10 of A1	1ml of Standard A1 up to a 10ml final volume.
A5	1/10 of A4	1ml of Standard A4 up to a 10ml final volume.

Stock B (ST100625-8) Exp. 2-28-15

<u>Element</u>		<u>ug/ml</u>
P, Si		100
B, Ba, Cr, Cu, Mn, Mo, Ni, Pb, Sn, Sr, Ti, Zn		20
As, Cd, Co, Se, Tl, V		10
Sb		4
Be		2

Stock Ag- 1000 ug/ml (ST100407-4) Exp. 2-28-15
 Stock Th – 1000 ug/ml (ST100407-5) Exp. 2-28-15

The following dilutions of Stock Ag and Stock Th are made to provide the daily calibration Standards.

<u>Standard</u>	<u>Dilution</u>	<u>Procedure</u>
B1	1/2 of Stock B 1/500 Ag and 1/500 Th	5ml of Stock B, 0.02ml of Stock Ag and 0.02ml of Stock Th up to a 10ml final volume.
B2	1/10 of B1	1.0ml of Standard B1 up to a 10ml final volume.
B3	1/10 of B2	1.0ml of Standard B2 up to a 10ml final volume.

Stock C (ST100625-9) Exp. 6-30-15

<u>Element</u>		<u>ug/ml</u>
S, U		100
Bi, Zr		10
<u>Standard</u>	<u>Dilution</u>	<u>Procedure</u>
C1	1/2 of Stock C	5ml of Stock C up to a 10ml final volume.
C2	1/10 of C1	1.0ml of Standard C1 up to a 10ml final volume.
C3	1/10 of C2	1.0ml of Standard C2 up to a 10ml final volume.

RL STD (Reporting Limit Standard) Intermediate.
 (ST100301-54) Exp. 2-28-15

<u>Element</u>	<u>ug/ml</u>
K, Na	500
Ca, Mg	200
Al, U	100
B, Fe, P, S, Si	50
Li, Mo, Sn, Sr, Ti	10
Sb	8
Ni, As, Bi, Se, Tl, Zn, Zr	5
Pb	3
Ag, Ba, Co, Cr, Cu, Mn, V, Th	2
Be, Cd	1

RL STD (working standard) made daily by diluting the intermediate above 1000 fold. This working standard has concentration levels at the normal ALS-FC reporting limits for all elements except Ca, Mg and Na, K which are at 0.2ppm and 0.5ppm; this is below the normal ALS-FC reporting limit.

RL2 (working standard) made daily by diluting the intermediate above 333 fold.

Blank Solution

Double D.I. water, 3% HNO₃ and 5%HCl
Used for Std. Blank, ICB and CCB

CCV (ST110818-5) Exp. 6-20-12

<u>Element</u>	<u>ug/ml</u>
Al, Ca, Mg, K, Na	50
Fe	20
U, P, S, Si	5
B, Ba, Cr, Cu, Mn, Mo, Ni, Pb, Se, Sn, Zn, Zr	1
As, Be, Bi, Cd, Co, Li, Sb, Sr, Ti, Tl, V	0.5
Ag, Th	0.2

ICV (ST110815-5) Exp. 6-20-12

Prepared daily by diluting the CCV (described above) 1/2.
The 1/2 dilution is made by diluting 5ml of the CCV to a 10ml final volume.
The resulting concentrations are:

<u>Element</u>	<u>ug/ml</u>
Al, Ca, Mg, K, Na	25
Fe	10
U, P, S, Si	2.5
B, Ba, Cr, Cu, Mn, Mo, Ni, Pb, Se, Sn, Zn, Zr	0.5
As, Be, Bi, Cd, Co, Li, Sb, Sr, Ti, Tl, V	0.25
Ag, Th	0.1

CRI (ST110105-13) Exp. 6-20-12

Made By diluting
1.0ml of CRI Stock (ST110105-4) Exp. 6-20-12
to a 100ml final volume.

<u>Element</u>	<u>ug/ml</u>
Ca, Mg, K, Na	5.0
Al, B, Ba	0.4
Fe, U, P, S	0.2
Sb	0.12
Co, Si, Sn, V, Th	0.1
Ni	0.08
Cu, Bi, Zr	0.05
Zn	0.04
Mn	0.03
Ag, Cr, Li, Mo, Sr, Ti, Tl	0.02
Be, Cd, As, Se,	0.01
Pb	0.006

ICSA (ST110105-7) Exp. 6-20-12

<u>Element</u>	<u>ug/ml</u>
Ca, Mg, Al	250
Fe	100

ICSAB (ST110105-8) Exp. 6-20-12

<u>Element</u>	<u>ug/ml</u>
Ca, Mg, Al	250
Fe	100
U	10

Sb	0.6
Ba, Be, Co, V, Cr, Cu, Mn, Bi, Zr	0.5
Ag	0.2
As, Tl	0.1
Se, Pb, Th	0.05

Pipette ID Numbers

1.0ml to 5.0ml --- M-55
0.1ml to 1.0ml --- M-61
0.01ml to 0.1ml --- M-57

Acid Lot Numbers

HCl – J35042
HNO₃ – J41037

Inter Element Correction Information

The following table summarizes spectral interferences that have been identified and for which IEC's are used. If a sample contains a concentration of an interfering element that exceeds the upper analytical range, and an affected element is being determined, it is necessary to dilute the sample to bring the interfering element into analytical range.

<u>Interfering Element (ug/ml)</u>	<u>Affected Element</u>
Al (500)	Pb
Mg (500)	Th
Fe (200)	Se, Tl, V, Pb, U
Si (50)	Zr
U (50)	Al, Cr, Cu, Bi, Pb, Mg, Se, Ag, Tl, Si
Ba (10)	Co
Cr (10)	Sb
Cu (10)	Bi
Mn (10)	Tl
Mo (10)	Al, Si, Pb,, Sb
Ti (10)	Co, Bi, Si, Sn, Tl, Pb, Zr
As (5)	Cd
V (5)	Al, Be, Tl
Zr (5)	Ag

The following table lists element concentrations (ug/ml) that no significant spectral interferences have been observed.

<u>Element</u>	<u>Concentration</u>	<u>Element</u>	<u>Concentration</u>	<u>Element</u>	<u>Concentration</u>
K	500	Se	10	Li	5
Na	500	Pb	10	Cd	5
Ca	500	Zn	10	Co	5
P	50	Sr	10	Ag	2
S	50	Sn	10	Sb	2
Ni	10	Bi	5	Be	1
B	10	Tl	5		

- 2X – Dilution made by diluting 2.5ml of sample up to a 5ml final volume.
- 3X - Dilution made by diluting 2.0ml of sample up to a 6ml final volume.
- 4X - Dilution made by diluting 2.0ml of sample up to a 8ml final volume.
- 5X - Dilution made by diluting 1.0ml of sample to a 5ml final volume.
- 10X - Dilution made by diluting 0.5ml of sample to a 5ml final volume.
- 20X – Dilution made by diluting 0.25ml of sample to a 5ml final volume.
- 25X – Dilution made by diluting 0.2ml of sample to a 5ml final volume.

100X – Dilution made by diluting 0.05ml of sample to a 5ml final volume.
500X – Dilution made by diluting 0.02ml of sample to a 10ml final volume.
1000X – Dilution made by diluting a 10X dilution 100X.

Analytical Spikes

Comments

1. Please see run log and work orders for elements of interest.
-

Daily Maintenance

1. Check/ Change Peristaltic pump tubing.
2. Check the torch for deposits, clean if necessary.
3. Check/ Empty drain water.

Daily Maintenance done by _____ MTL _____.

Monthly Maintenance

1. Check/Clean nebulizer and spray chamber.
2. Clean air filters
3. Check/Clean entrance slit.
4. Fill water recirculating reservoir.

Monthly maintenance done by: MTL 11-01-2011.

Major problems / adjustments / repairs recorded in the ICP Maintenance Log (3716).

ICPTrace2 Run Log -- 11/17/2011

Instrument ID: ICPTrace2
 File Name: 111117A.
 AnalRunID: IT111117-2A1
 CalibRefID: IT111117-2A1

Comment	Inst Sample Name	Lab ID	DF	Date Analyzed	Time Analyzed
	MIXBHIGH	MIXBHIGH	1	11/17/2011	13:43
	MIXBHIGH	MIXBHIGH	1	11/17/2011	14:07
	MIXAHIGH	MIXAHIGH	1	11/17/2011	14:12
	MIXCHIGH	MIXCHIGH	1	11/17/2011	14:13
	ICV	ICV	1	11/17/2011	14:28
	ZZZ	ZZZ	1	11/17/2011	14:29
	ICB	ICB	1	11/17/2011	14:32
	CRI	CRI1	1	11/17/2011	14:35
	ICSA	ICSA1	1	11/17/2011	14:37
	ICSAB	ICSAB1	1	11/17/2011	14:44
	CCV	CCV1	1	11/17/2011	14:46
	CCB	CCB1	1	11/17/2011	14:48
	F111115-1MB	F111115-1MB	1	11/17/2011	14:50
	F111115-1RVS	F111115-1	1	11/17/2011	14:52
	F111115-1LCS	F111115-1LCS	1	11/17/2011	14:53
	1111119-1	1111119-1	1	11/17/2011	14:55
- S	1111150-1	1111150-1	1	11/17/2011	14:57
- S	1111150-1D	1111150-1DUP	1	11/17/2011	14:59
- S	1111150-1L 5X	1111150-1SER	5	11/17/2011	15:01
- S	1111150-1MS	1111150-1MS	1	11/17/2011	15:02
- S	1111150-1MSD	1111150-1MSD	1	11/17/2011	15:04
- Na	1111179-1	1111179-1	1	11/17/2011	15:06
	CCV	CCV2	1	11/17/2011	15:09
	CCB	CCB2	1	11/17/2011	15:10
	1111184-1	1111184-1	1	11/17/2011	15:12
+ Na	1111179-1 5X	1111179-1	5	11/17/2011	15:14
	CCV	CCV3	1	11/17/2011	15:16
	CCB	CCB3	1	11/17/2011	15:20
	IP111116-3MB	IP111116-3MB	1	11/17/2011	15:21
	IP111116-3RVS	IP111116-3	1	11/17/2011	15:23
	IP111116-3LCS	IP111116-3LCS	1	11/17/2011	15:25
	1111185-2	1111185-2	1	11/17/2011	15:27
	1111185-3	1111185-3	1	11/17/2011	15:28
- Na,S	1111185-4	1111185-4	1	11/17/2011	15:30
- Na,S	1111185-5	1111185-5	1	11/17/2011	15:32

Data Package ID:

ICPTrace2 Run Log -- 11/17/2011

Instrument ID: ICPTrace2
 File Name: 111117A.
 AnalRunID: IT111117-2A1
 CalibRefID: IT111117-2A1

Comment	Inst Sample Name	Lab ID	DF	Date Analyzed	Time Analyzed
	1111185-6	1111185-6	1	11/17/2011	15:34
	1111185-7	1111185-7	1	11/17/2011	15:36
	1111185-8	1111185-8	1	11/17/2011	15:37
	CCV	CCV4	1	11/17/2011	15:40
	CCB	CCB4	1	11/17/2011	15:42
	1111185-9	1111185-9	1	11/17/2011	15:44
	1111185-10	1111185-10	1	11/17/2011	15:46
	1111185-11	1111185-11	1	11/17/2011	15:47
	1111185-12	1111185-12	1	11/17/2011	15:49
	1111185-12D	1111185-12DUP	1	11/17/2011	15:51
	1111185-12L 5X	1111185-12SER	5	11/17/2011	15:53
	1111185-12MS	1111185-12MS	1	11/17/2011	15:55
	1111185-12MSD	1111185-12MSD	1	11/17/2011	15:56
	1111185-14	1111185-14	1	11/17/2011	15:58
	1111185-15	1111185-15	1	11/17/2011	16:00
	CCV	CCV5	1	11/17/2011	16:03
	CCB	CCB5	1	11/17/2011	16:05
	1111185-16	1111185-16	1	11/17/2011	16:06
	1111185-17	1111185-17	1	11/17/2011	16:08
	1111185-18	1111185-18	1	11/17/2011	16:10
	1111185-19	1111185-19	1	11/17/2011	16:12
	1111185-20	1111185-20	1	11/17/2011	16:14
	1111185-22	1111185-22	1	11/17/2011	16:16
	1111185-23	1111185-23	1	11/17/2011	16:17
	IP111116-4MB	IP111116-4MB	1	11/17/2011	16:19
	IP111116-4RVS	IP111116-4	1	11/17/2011	16:21
	CCV	CCV6	1	11/17/2011	16:33
	CCB	CCB6	1	11/17/2011	16:35
	IP111116-4LCS	IP111116-4LCS	1	11/17/2011	16:36
	1111137-1	1111137-1	1	11/17/2011	16:38
	1111138-1	1111138-1	1	11/17/2011	16:40
	1111140-1	1111140-1	1	11/17/2011	16:42
-Si,Zr	1111160-1	1111160-1	1	11/17/2011	16:44
	1111162-16	1111162-16	1	11/17/2011	16:46
	1111185-13	1111185-13	1	11/17/2011	16:47

Data Package ID: _____

ICPTrace2 Run Log -- 11/17/2011

Instrument ID: ICPTrace2
 File Name: 111117A.
 AnalRunID: IT111117-2A1
 CalibRefID: IT111117-2A1

Comment	Inst Sample Name	Lab ID	DF	Date Analyzed	Time Analyzed
	1111185-13D	1111185-13DUP	1	11/17/2011	16:49
	1111185-13L 5X	1111185-13SER	5	11/17/2011	16:51
	1111185-13MS	1111185-13MS	1	11/17/2011	16:53
	CCV	CCV7	1	11/17/2011	16:55
	CCB	CCB7	1	11/17/2011	16:57
	1111185-13MSD	1111185-13MSD	1	11/17/2011	16:59
	1111185-24	1111185-24	1	11/17/2011	17:01
	1111185-25	1111185-25	1	11/17/2011	17:03
	1111185-26	1111185-26	1	11/17/2011	17:05
	1111185-27	1111185-27	1	11/17/2011	17:07
	1111185-28	1111185-28	1	11/17/2011	17:09
	1111185-29	1111185-29	1	11/17/2011	17:11
	1111185-30	1111185-30	1	11/17/2011	17:12
	1111185-31	1111185-31	1	11/17/2011	17:14
	1111185-32	1111185-32	1	11/17/2011	17:16
	CCV	CCV8	1	11/17/2011	17:19
	CCB	CCB8	1	11/17/2011	17:21
	1111185-33	1111185-33	1	11/17/2011	17:22
	1111185-34	1111185-34	1	11/17/2011	17:24
	1111185-35	1111185-35	1	11/17/2011	17:26
- K,Mg,Na,S,Th	1111205-1	1111205-1	1	11/17/2011	17:28
- K,Mg,Na,S,Th	1111205-2	1111205-2	1	11/17/2011	17:30
+ Na,S	1111185-4 5X	1111185-4	5	11/17/2011	17:34
+ Na,S	1111185-5 5X	1111185-5	5	11/17/2011	17:36
	CRI	CRI2	1	11/17/2011	17:38
	ICSA	ICSA2	1	11/17/2011	17:40
	ICSAB	ICSAB2	1	11/17/2011	17:41
	CCV	CCV9	1	11/17/2011	17:43
	CCB	CCB9	1	11/17/2011	17:46

Data Package ID: _____

Sample Id1	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu
ZZZ	1.97422	0.10055	4.85093	9.68315	9.63828	0.93814	0.00118	-0.06397	4.90651	4.75113	9.47108	9.90724
MIXBHGH	H2.00465	-0.04542	4.80578	9.58937	9.72450	0.96938	0.00163	-0.05793	4.89980	4.81674	9.67732	9.76861
MIXAHGH	0.00089	497.48419	0.00599	0.01269	0.00122	0.00105	0.00698	491.32468	0.00005	0.00115	0.00287	-0.00614
MIXCHGH	-0.00326	0.20223	-0.00451	0.02027	-0.00022	0.00479	4.88058	-0.00223	-0.00097	0.00570	-0.00496	-0.00254
ICV	0.10224	25.59304	0.25051	0.50352	0.49779	0.24146	0.25224	24.95668	0.25951	0.25044	0.50109	0.49237
ZZZ	-0.00061	-0.01780	0.00184	0.00150	-0.00112	-0.00026	-0.00547	-0.06472	-0.00106	-0.00094	-0.00182	-0.00228
ICB	-0.00051	-0.00953	-0.00065	0.00051	-0.00110	-0.00026	-0.00256	-0.06684	-0.00010	-0.00102	-0.00095	-0.00252
CRI	0.02081	0.44033	0.01340	0.40883	0.40921	0.01154	0.04833	5.18660	0.01242	0.10266	0.02075	0.04950
ICSA	-0.00055	264.67603	0.00282	-0.00151	-0.00068	0.00053	0.00610	262.34171	0.00091	0.00050	-0.00154	-0.00570
ICSAB	0.20313	213.71334	0.10061	1.01514	0.50935	0.47790	0.53352	266.64554	1.03668	0.48380	0.47986	0.51796
CCV	0.21654	51.56166	0.51098	1.02234	1.01224	0.49127	0.52520	51.08660	0.53063	0.50518	1.01780	1.00896
CCB	-0.00085	0.07594	-0.00010	0.00047	-0.00060	0.00028	-0.00277	0.01861	0.00102	-0.00094	-0.00103	-0.00186
F111115-1MB	-0.00134	0.04501	0.00154	-0.00124	-0.00096	0.00007	-0.00374	-0.03453	0.00036	-0.00155	-0.00161	-0.00215
F111115-1RVS	0.01018	1.03858	0.05069	0.04851	0.04712	0.00961	0.10188	4.88950	0.02145	0.01894	0.04791	0.04569
F111115-1LCS	0.09591	2.05111	1.90614	0.48412	1.93906	0.04650	-0.00427	37.66709	0.05062	0.47917	0.19233	0.23887
1111119-1	-0.00082	0.04634	-0.00083	0.02924	0.01644	0.00003	-0.00356	9.01841	-0.00002	-0.00054	0.00173	0.02595
1111150-1	-0.00085	0.01846	0.00367	0.02933	0.02242	0.00013	-0.00017	349.15666	-0.00011	-0.00090	-0.00134	-0.00097
1111150-1D	-0.00103	0.02428	0.00312	0.02933	0.02198	0.00010	-0.00600	335.83248	0.00045	-0.00079	-0.00142	-0.00098
1111150-1L 5X	-0.00009	0.00891	0.00573	0.00429	0.00369	-0.00009	-0.00536	64.46820	0.00037	-0.00067	-0.00103	-0.00198
1111150-1MS	0.09797	2.11191	1.95764	0.52827	1.96455	0.04607	0.00049	376.91494	0.05075	0.47397	0.18722	0.24637
1111150-1MSD	0.09839	2.11900	1.97132	0.53583	1.97490	0.04647	0.00104	380.59278	0.05126	0.47779	0.18899	0.24822
1111179-1	-0.00038	0.05139	0.00537	0.03437	0.09792	0.00025	-0.00190	6.28794	0.00022	-0.00073	-0.00102	-0.00150
CCV	0.21920	52.05255	0.52378	1.03601	1.02587	0.49141	0.53162	51.12843	0.53521	0.50813	1.01984	1.02797
CCB	-0.00104	0.04709	0.00105	-0.00102	-0.00091	0.00026	-0.00029	-0.04163	0.00021	-0.00117	-0.00072	-0.00257
1111184-1	-0.00071	0.03110	0.00184	0.02046	0.06892	0.00024	-0.00655	56.45425	0.00046	-0.00122	-0.00140	-0.00179
1111179-1 5X	-0.00058	0.02146	0.00142	0.00420	0.01845	0.00004	-0.00050	1.16882	-0.00008	-0.00145	-0.00138	-0.00233
CCV	0.21360	50.78668	0.50333	0.99805	0.99683	0.47645	0.51953	49.53625	0.52191	0.49198	0.98983	1.00003
CCB	-0.00086	0.02550	0.00026	-0.00196	-0.00070	0.00021	-0.00352	-0.02668	0.00011	-0.00067	-0.00078	-0.00198
IP111116-3MB	-0.00055	-0.00665	-0.00260	-0.00214	-0.00099	-0.00001	0.00079	-0.01038	-0.00033	-0.00121	-0.00113	-0.00276
IP111116-3RVS	0.01007	0.99860	0.05312	0.04784	0.04707	0.00974	0.09886	4.83106	0.02064	0.01848	0.04742	0.04592
IP111116-3LCS	0.09766	2.05104	1.95541	0.49551	1.93996	0.04876	-0.00210	38.35521	0.05103	0.48522	0.19320	0.24104
1111185-2	-0.00088	0.02061	0.00075	0.06999	0.09522	0.00166	-0.00525	70.07498	0.00014	-0.00115	-0.00160	-0.00095
1111185-3	-0.00053	0.01776	-0.00010	0.07098	0.09386	0.00168	-0.00060	69.72893	0.00001	-0.00073	-0.00100	-0.00098
1111185-4	-0.00055	0.05206	0.00239	0.00916	0.02250	0.00030	-0.00158	39.07279	0.00038	0.00035	-0.00063	-0.00204
1111185-5	-0.00110	0.00903	-0.00236	0.00844	0.02245	0.00041	-0.00418	39.88136	0.00016	-0.00022	-0.00184	-0.00220
1111185-6	-0.00101	0.06702	-0.00102	0.15238	0.20359	0.00036	-0.00287	63.14557	-0.00014	0.00022	-0.00091	-0.00107
1111185-7	-0.00070	0.00824	-0.00454	0.15702	0.20500	0.00031	-0.00482	64.56961	-0.00008	-0.00008	-0.00167	-0.00173
1111185-8	-0.00055	0.08799	0.00032	0.05175	0.20019	0.00026	-0.00439	67.15858	0.00024	-0.00028	-0.00102	-0.00198
CCV	0.21241	50.51746	0.49592	0.99198	0.98991	0.47054	0.51768	49.18581	0.52034	0.48754	0.97947	1.00041
CCB	-0.00059	0.01196	-0.00199	-0.00142	-0.00083	-0.00004	-0.00158	-0.03619	-0.00049	-0.00098	-0.00098	-0.00174
1111185-9	-0.00109	0.03441	-0.00144	0.05211	0.20390	-0.00011	0.00144	70.29636	0.00059	-0.00073	-0.00128	-0.00119
1111185-10	-0.00055	-0.02972	0.00312	0.02064	0.15514	-0.00022	-0.00428	106.45214	0.00030	-0.00061	-0.00113	-0.00132
1111185-11	-0.00098	-0.04209	0.00148	0.01974	0.22868	-0.00021	0.00144	122.86211	0.00014	-0.00050	-0.00048	-0.00162
1111185-12	-0.00087	0.01800	0.00245	0.01938	0.03970	-0.00014	-0.00180	27.05872	-0.00004	-0.00088	-0.00104	-0.00125
1111185-12D	-0.00055	0.01423	-0.00284	0.01938	0.04051	-0.00001	-0.00061	27.71844	0.00030	-0.00008	-0.00086	-0.00095
1111185-12L 5X	-0.00041	-0.01224	0.00324	0.00132	0.00724	-0.00004	0.00155	5.54394	0.00016	-0.00100	-0.00150	-0.00149
1111185-12MS	0.09742	2.11457	1.97898	0.52327	2.01596	0.04972	-0.00164	66.89617	0.05152	0.49181	0.19649	0.24716
1111185-12MSD	0.09763	2.13043	1.99212	0.52399	2.02578	0.04988	-0.00530	67.12167	0.05188	0.49354	0.19636	0.24830
1111185-14	-0.00062	0.03740	-0.00303	0.01947	0.04103	0.00021	-0.00503	27.95151	0.00006	-0.00058	-0.00080	-0.00138
1111185-15	-0.00062	-0.01509	-0.00023	0.01848	0.04059	0.00003	0.00015	28.60251	0.00028	-0.00069	-0.00132	-0.00168

Sample Id1	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu
CCV	0.21283	50.85296	0.49592	0.99310	0.99362	0.47866	0.51458	49.48423	0.51480	0.49312	0.99412	0.99791
CCB	-0.00065	0.00973	0.00196	-0.00196	-0.00075	0.00006	-0.00298	-0.02729	0.00057	-0.00056	-0.00093	-0.00174
1111185-16	-0.00102	-0.01219	0.00172	0.02186	0.08900	0.00030	-0.00439	28.16971	0.00047	-0.00062	-0.00130	-0.00204
1111185-17	-0.00043	-0.00519	-0.00309	0.02023	0.08785	0.00023	0.00112	27.63987	0.00051	-0.00078	-0.00102	-0.00139
1111185-18	-0.00069	0.18424	0.00446	0.03802	3.27866	0.00001	-0.00361	437.00660	0.00006	0.00129	0.00024	0.00644
1111185-19	-0.00062	0.08976	0.00154	0.01735	0.04639	-0.00016	0.00221	23.17805	0.00004	-0.00092	-0.00092	-0.00174
1111185-20	0.00012	-0.01796	0.00172	0.01533	0.04532	-0.00010	0.00123	22.92401	0.00031	-0.00107	-0.00123	-0.00203
1111185-22	-0.00138	1.81585	-0.00029	0.00573	0.05120	0.00014	-0.00323	22.93376	0.00018	-0.00082	0.00038	-0.00005
1111185-23	-0.00071	0.10187	0.00324	0.00677	0.04417	0.00008	-0.00349	22.21520	-0.00028	0.00025	-0.00071	0.00060
IP111116-4MB	-0.00078	-0.00276	-0.00546	-0.00498	-0.00107	0.00015	-0.00061	-0.06005	0.00015	-0.00060	-0.00166	-0.00228
IP111116-4RVS	0.01064	1.02158	0.05549	0.04676	0.04814	0.01031	0.10372	4.98240	0.02080	0.01932	0.04962	0.04706
CCV	0.21275	50.69064	0.50048	0.98856	0.98912	0.47701	0.51521	49.28076	0.51521	0.49057	0.98904	0.99794
CCB	-0.00016	-0.00848	-0.00248	-0.00287	-0.00107	-0.00009	-0.00547	-0.05944	0.00050	-0.00060	-0.00088	-0.00222
IP111116-4LCS	0.09662	2.03472	1.92972	0.48682	1.92072	0.04838	-0.00405	37.93420	0.05080	0.48105	0.19275	0.24044
1111137-1	-0.00085	-0.00092	0.00203	0.13253	0.18569	0.00018	-0.00029	131.11004	0.00053	-0.00072	-0.00103	-0.00215
1111138-1	-0.00072	0.00166	0.02295	0.09673	0.41405	0.00020	-0.00168	120.98567	0.00014	-0.00063	-0.00123	0.00168
1111140-1	-0.00102	0.00627	0.00056	0.00537	0.05083	0.00026	-0.00063	44.42292	0.00009	-0.00121	-0.00122	0.02991
1111160-1	-0.00146	76.76008	0.05190	0.16445	1.07047	0.00921	0.00438	230.24692	0.00221	0.06081	0.06117	0.13836
1111162-16	-0.00058	2.56957	-0.00150	0.02636	0.08691	0.00047	0.00011	44.77517	0.00020	0.00063	0.00072	0.00079
1111185-13	-0.00044	0.01132	0.00056	0.01924	0.04111	0.00029	-0.00353	28.99141	0.00013	-0.00122	-0.00182	-0.00227
1111185-13D	-0.00144	0.00438	-0.00187	0.01843	0.03991	0.00022	-0.00158	28.29656	0.00021	-0.00111	-0.00165	-0.00203
1111185-13L 5X	-0.00122	-0.00095	-0.00071	-0.00039	0.00724	0.00008	-0.00709	5.74690	-0.00018	-0.00089	-0.00077	-0.00265
1111185-13MS	0.09626	2.01366	1.90331	0.50343	1.95062	0.04745	-0.00504	65.55828	0.05007	0.47214	0.18903	0.24152
CCV	0.21337	50.63634	0.50011	0.98775	0.98862	0.47221	0.51780	48.98542	0.51397	0.48730	0.98321	1.00105
CCB	-0.00136	0.00900	-0.00047	-0.00192	-0.00096	0.00001	-0.00136	-0.05446	0.00019	-0.00102	-0.00092	-0.00235
1111185-13MSD	0.09599	1.99952	1.88823	0.50068	1.92734	0.04729	0.00024	65.67371	0.05029	0.46929	0.18779	0.23791
1111185-24	-0.00075	0.54915	0.00160	0.02348	0.05669	0.00010	-0.00696	48.46239	-0.00009	0.00003	-0.00037	-0.00167
1111185-25	-0.00078	0.00784	0.00233	0.01686	0.04584	0.00018	-0.00191	40.88025	0.00043	-0.00068	-0.00128	-0.00312
1111185-26	-0.00152	0.04929	0.00142	0.01398	0.02914	0.00024	-0.00223	32.63006	-0.00012	-0.00120	-0.00090	-0.00234
1111185-27	-0.00058	0.01604	-0.00035	0.01375	0.02898	0.00031	0.00047	32.79677	-0.00002	-0.00014	-0.00061	-0.00251
1111185-28	-0.00105	0.06382	-0.00083	0.01272	0.02849	0.00038	-0.00137	30.34549	-0.00013	-0.00098	-0.00103	-0.00228
1111185-29	-0.00045	0.01793	0.00209	0.01276	0.02867	0.00035	-0.00396	29.81039	0.00017	-0.00117	-0.00111	-0.00252
1111185-30	-0.00117	0.13997	0.00190	0.01132	0.02616	0.00026	-0.00676	30.62758	0.00017	-0.00148	-0.00116	-0.00209
1111185-31	-0.00104	0.00761	0.00215	0.01231	0.02428	0.00017	-0.00429	29.91299	0.00036	-0.00060	-0.00099	-0.00251
1111185-32	-0.00075	0.03088	0.00245	0.01168	0.02483	0.00021	-0.00482	30.29837	0.00021	-0.00159	-0.00107	-0.00234
CCV	0.21333	50.54642	0.49617	0.98600	0.98473	0.46870	0.51261	48.78078	0.51500	0.48495	0.97517	1.00174
CCB	-0.00041	0.01748	0.00008	-0.00327	-0.00089	0.00017	-0.00331	-0.05008	0.00077	-0.00098	-0.00091	-0.00293
1111185-33	-0.00062	0.00168	-0.00169	0.01272	0.02465	0.00011	-0.00385	29.77344	0.00027	-0.00132	-0.00112	-0.00258
1111185-34	-0.00038	0.00082	0.00123	-0.00386	-0.00123	0.00000	-0.00104	-0.06488	0.00020	-0.00075	-0.00098	-0.00288
1111185-35	-0.00094	0.01175	-0.00096	-0.00309	-0.00094	0.00015	-0.00828	-0.06382	0.00001	-0.00124	-0.00126	-0.00275
1111205-1	-0.00023	-0.03293	0.00890	3.19278	0.01197	-0.00042	0.00079	257.89016	-0.00013	-0.00020	-0.00098	-0.00264
1111205-2	-0.00076	-0.02378	0.00519	3.15222	0.01226	-0.00033	-0.00320	256.62971	0.00001	-0.00058	-0.00145	-0.00270
1111185-4 5X	-0.00081	0.03104	0.00075	0.00141	0.00369	0.00037	-0.00331	8.06835	0.00010	-0.00078	-0.00132	-0.00294
1111185-5 5X	-0.00028	0.02232	-0.00138	0.00110	0.00364	0.00036	-0.00320	8.07520	0.00024	-0.00074	-0.00164	-0.00306
CCV	0.02072	0.46748	0.00945	0.41058	0.40868	0.01212	0.04962	5.24551	0.01295	0.10270	0.02050	0.04908
IP111116-4SA	-0.00090	264.23238	-0.00394	-0.00332	-0.00089	0.00093	0.00447	264.21337	0.00095	0.00016	-0.00196	-0.00664
IP111116-4SAB	0.20494	211.03780	0.09861	1.00197	0.49811	0.47110	0.52760	264.21558	1.03604	0.48019	0.47507	0.51998
CCV	0.21378	50.66048	0.49617	0.98829	0.98286	0.47686	0.50917	49.37414	0.51245	0.49124	0.99042	0.99580
CCB	-0.00125	0.00504	0.00069	-0.00075	-0.00078	0.00011	-0.00331	-0.04465	0.00031	-0.00136	-0.00111	-0.00222
Pb/Ba 1 11/16/11 10X	-0.00060	0.04927	0.00470	0.22455	0.02572	-0.00059	-0.00093	0.06948	-0.00041	0.00062	-0.00006	-0.00385

Sample Id1	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu
Pb/Ba 2 11/16/11 10X	-0.00053	0.03968	0.00245	0.11272	0.07271	-0.00071	-0.00094	0.20628	0.00001	0.00106	0.00233	-0.00438
Pb/Ba 3 11/16/11 10X	-0.00036	0.05787	0.00087	0.10349	0.14392	-0.00042	-0.00536	0.12550	0.00004	0.00132	0.00056	-0.00354

Sample Id1	Fe	K	Li	Mg	Mn	Mo	Na	Ni	P	Pb	Pb I	Pb II
ZZZ	-0.02147	-0.30542	-0.00309	-0.10442	9.37878	9.56521	0.17230	9.75579	47.41005	9.40859	9.48143	9.37222
MIXBHGH	-0.02107	-0.27499	-0.00284	-0.09043	9.53913	9.67638	0.17564	9.65598	47.79062	9.57946	9.43721	9.65048
MIXAHGH	195.48943	246.65386	9.73628	495.19904	-0.00962	0.00090	148.74904	0.00174	0.00781	-0.00307	0.00110	L-0.00511
MIXCHGH	0.00035	-0.25090	-0.00253	-0.37548	0.00475	0.00033	0.17662	0.00030	0.01587	0.00374	L-0.01161	0.01140
ICV	10.19890	24.71438	0.24896	25.30639	0.49623	0.49776	23.75279	0.47785	2.45580	0.49546	0.49185	0.49726
ZZZ	-0.01252	-0.25554	-0.00279	-0.05611	-0.00092	-0.00199	0.12194	-0.00226	-0.01517	0.00014	-0.00231	0.00137
ICB	-0.01398	-0.22526	-0.00273	-0.05506	-0.00097	-0.00300	0.12022	-0.00272	-0.01262	-0.00286	L-0.00354	-0.00252
CRT	0.20053	3.87523	0.01575	5.17407	0.03137	0.01853	4.29130	0.07879	0.18643	0.00665	0.00654	0.00671
ICSA	107.70821	-0.31736	-0.00251	267.22938	0.00269	-0.00465	0.13484	0.00001	0.00176	-0.00266	L-0.00420	-0.00190
ICSAB	109.68636	-0.34162	1.14469	270.63593	0.49030	0.99919	0.13585	0.95015	0.98913	0.04768	0.04216	0.05044
CCV	20.79953	51.94536	0.54804	51.14166	0.99689	1.01914	48.99134	0.98555	5.01802	1.00888	1.00271	1.01195
CCB	0.01846	-0.19608	-0.00248	0.02651	-0.00043	-0.00305	0.13645	-0.00290	-0.01396	0.00100	-0.00217	0.00257
F111115-1MB	-0.00390	-0.21031	-0.00290	-0.03447	-0.00092	-0.00332	0.14159	-0.00167	-0.01463	-0.00049	L-0.00472	0.00162
F111115-1RVS	0.99471	8.53681	0.03854	4.90627	0.04764	0.09403	8.28204	0.04700	0.95048	0.04879	0.04895	0.04871
F111115-1LCS	0.97272	39.84491	0.48695	37.26227	0.47795	0.96295	36.48765	0.46700	-0.00388	0.48053	0.47841	0.48160
1111119-1	0.06548	0.90023	-0.00093	2.21679	0.00733	0.00054	125.08900	-0.00049	-0.05198	0.00752	0.00602	0.00828
1111150-1	-0.00516	5.92845	0.00302	57.47843	0.44591	1.73553	78.69767	-0.00158	0.01197	-0.00013	-0.00290	0.00126
1111150-1D	-0.00370	5.73623	0.00279	55.84489	0.43283	1.68631	76.99689	-0.00136	0.00593	-0.00141	L-0.00347	-0.00038
1111150-1L 5X	-0.01232	0.59364	-0.00202	11.22368	0.08971	0.35151	13.96709	-0.00133	-0.00294	-0.00133	-0.00213	-0.00093
1111150-1MS	0.96373	54.43644	0.59369	93.44680	0.89803	2.64755	114.23687	0.45997	0.01372	0.48298	0.47360	0.48766
1111150-1MSD	0.96919	54.63737	0.59824	94.26523	0.90279	2.67084	114.47842	0.46731	0.02729	0.48116	0.48355	0.47997
1111179-1	-0.00814	2.05744	0.00261	1.38936	0.00401	0.00416	H166.21898	-0.00202	-0.00442	0.00104	0.00112	0.00100
CCV	20.81672	52.60359	0.55612	51.34990	0.99640	1.02958	49.34993	1.00130	5.05885	1.00541	1.00971	1.00326
CCB	-0.00436	-0.27523	-0.00280	-0.03447	-0.00073	-0.00254	0.12921	-0.00235	-0.01221	-0.00090	-0.00264	-0.00002
1111184-1	-0.00940	1.90351	-0.00002	14.36954	0.21352	-0.00277	22.80198	-0.00131	-0.00845	0.00261	-0.00078	0.00430
1111179-1 5X	-0.01152	0.46871	-0.00103	0.21524	0.00001	-0.00263	36.39867	-0.00103	-0.01141	0.00019	-0.00175	0.00116
CCV	20.19083	51.52252	0.53049	49.92586	0.96866	0.99422	48.41219	0.95979	4.85913	0.97815	0.97669	0.97888
CCB	-0.00045	-0.24003	-0.00277	-0.02154	-0.00058	-0.00204	0.13768	-0.00206	-0.01504	-0.00066	-0.00240	0.00021
IP111116-3MB	-0.01232	-0.23019	-0.00297	-0.05770	-0.00097	-0.00442	0.12615	-0.00193	-0.01813	-0.00036	-0.00161	0.00026
IP111116-3RVS	0.99098	7.91983	0.03971	4.84415	0.04695	0.09467	8.21883	0.04689	0.92542	0.04746	0.04572	0.04833
IP111116-3LCS	0.97652	37.84089	0.49795	37.68110	0.48031	0.97845	36.57931	0.47635	-0.01504	0.48402	0.48516	0.48345
1111185-2	0.02409	12.68254	-0.00213	8.16283	0.01784	0.00825	57.15490	-0.00049	0.02487	-0.00007	L-0.00455	0.00217
1111185-3	-0.01192	12.59536	-0.00222	8.11917	-0.00097	0.00692	56.85876	-0.00144	0.02178	-0.00136	-0.00031	-0.00188
1111185-4	0.13502	78.94448	-0.00032	5.50297	0.15195	0.02859	H230.31017	-0.00105	-0.01947	-0.00132	0.00001	-0.00198
1111185-5	0.04240	78.44440	-0.00027	5.62565	0.15703	0.02836	H230.46678	-0.00142	-0.02686	0.00034	L-0.00565	0.00332
1111185-6	0.88679	58.60130	0.00339	6.39993	0.51123	-0.00066	35.21832	0.00115	0.02232	-0.00092	-0.00212	-0.00032
1111185-7	0.80808	59.57768	0.00337	6.48747	0.50628	-0.00273	35.94406	0.00078	0.00835	-0.00081	L-0.00344	0.00050
1111185-8	0.00141	12.08399	-0.00078	14.93241	0.04075	-0.00222	20.03213	-0.00028	-0.01154	-0.00070	-0.00281	0.00035
CCV	19.96444	51.38358	0.52889	49.47390	0.95647	0.98281	48.27535	0.95723	4.86743	0.96946	0.96596	0.97121
CCB	-0.00158	-0.22234	-0.00279	-0.02919	-0.00073	-0.00227	0.13316	-0.00228	-0.01087	0.00038	-0.00219	0.00166
1111185-9	0.00963	11.94776	-0.00083	15.74201	0.01974	-0.00236	20.50629	-0.00197	-0.01221	-0.00007	-0.00256	0.00117
1111185-10	0.00068	3.12893	-0.00263	14.92658	0.00670	-0.00360	16.17908	-0.00197	-0.01436	-0.00017	-0.00046	-0.00002
1111185-11	0.04837	4.05943	-0.00250	18.00773	-0.00024	-0.00231	32.90235	-0.00354	-0.01450	-0.00040	-0.00237	0.00058
1111185-12	0.03192	3.32426	-0.00279	3.24445	0.00685	0.00228	3.94789	-0.00136	0.01587	-0.00087	-0.00164	-0.00048
1111185-12D	0.03537	3.39265	-0.00275	3.31314	0.00714	0.00292	4.00125	-0.00144	0.02998	-0.00187	-0.00271	-0.00144
1111185-12L 5X	-0.00675	0.39776	-0.00297	0.61572	0.00059	-0.00195	0.83127	-0.00116	-0.00375	0.00048	0.00118	0.00013
1111185-12MS	1.04669	43.11621	0.51801	41.54965	0.49643	0.99597	42.00604	0.47650	0.02447	0.49131	0.49091	0.49152
1111185-12MSD	1.04450	43.29691	0.51996	41.57317	0.49785	0.99799	42.14899	0.48255	0.01977	0.49021	0.49034	0.49015
1111185-14	0.03822	3.40050	-0.00261	3.32107	0.00743	0.00283	4.00186	-0.00070	0.02998	0.00017	L-0.00358	0.00205
1111185-15	-0.01378	3.36603	-0.00274	3.40985	-0.00097	0.00288	4.09329	-0.00162	0.01936	-0.00085	-0.00214	-0.00020

Sample Id1	Fe	K	Li	Mg	Mn	Mo	Na	Ni	P	Pb	Pb I	Pb II
CCV	20.22729	51.21473	0.53086	50.06572	0.97265	0.98856	48.44345	0.94938	4.93027	0.98264	0.98151	0.98320
CCB	-0.00018	-0.24058	-0.00282	-0.02127	-0.00053	-0.00080	0.13630	-0.00224	-0.01020	-0.00133	L-0.00359	-0.00020
1111185-16	-0.00071	3.58671	-0.00270	5.13441	0.01627	-0.00025	4.35607	-0.00134	-0.01289	0.00025	-0.00290	0.00182
1111185-17	-0.01305	3.55096	-0.00282	5.07308	-0.00009	-0.00158	4.35531	-0.00080	-0.00912	0.00017	0.00111	-0.00030
1111185-18	0.58225	20.01085	0.30789	88.99708	0.22100	0.00058	37.64440	0.00093	0.33729	-0.00095	0.00013	-0.00149
1111185-19	0.12619	1.59200	0.00099	11.84059	0.00177	-0.00282	1.88901	-0.00224	-0.01208	-0.00106	-0.00210	-0.00054
1111185-20	-0.01020	1.51869	0.00066	11.79715	-0.00107	-0.00282	1.88540	-0.00199	0.00055	-0.00033	-0.00226	0.00063
1111185-22	1.11236	22.85282	-0.00213	3.91061	0.14686	0.00885	4.56818	-0.00213	0.03374	-0.00024	L-0.00447	0.00187
1111185-23	0.21673	22.44123	-0.00302	3.68096	0.10966	0.00940	4.50735	-0.00144	-0.00805	-0.00031	-0.00136	0.00022
IP111116-4MB	-0.01431	-0.27450	-0.00306	-0.05902	-0.00107	-0.00254	0.12130	-0.00160	-0.00993	-0.00146	-0.00035	-0.00201
IP111116-4RVS	1.01077	7.96451	0.04045	4.97183	0.04852	0.09940	8.33081	0.04825	0.96974	0.04894	0.04965	0.04858
CCV	20.11438	51.08180	0.52852	49.93738	0.96714	0.98521	48.35033	0.94827	4.89110	0.97692	0.97296	0.97889
CCB	-0.01026	-0.25809	-0.00301	-0.04529	-0.00092	-0.00254	0.12276	-0.00199	-0.01880	0.00041	-0.00106	0.00115
IP111116-4LCS	0.97139	37.38520	0.49427	37.46061	0.47702	0.96562	36.37002	0.46778	-0.01463	0.47939	0.48088	0.47865
1111137-1	0.88086	2.04650	-0.00061	58.38453	0.03611	-0.00135	71.48219	-0.00294	0.07285	0.00007	-0.00213	0.00116
1111138-1	3.63003	1.30785	-0.00075	51.73134	0.03757	-0.00181	26.20074	-0.00261	0.49561	0.00102	0.00108	0.00100
1111140-1	0.00904	-0.02555	0.00312	17.16096	0.00006	-0.00378	28.74720	-0.00235	-0.00711	-0.00055	-0.00039	-0.00063
1111160-1	141.50488	42.24131	0.11179	47.33469	1.86710	0.00269	18.05235	0.10212	4.47169	0.16058	0.15501	0.16336
1111162-16	3.11991	10.22123	0.00226	7.01515	0.05008	-0.00172	1.86639	0.00072	0.09623	0.00192	-0.00023	0.00300
1111185-13	-0.01278	3.38390	-0.00279	3.43759	-0.00102	0.00178	4.13462	-0.00120	0.02366	-0.00094	L-0.00501	0.00110
1111185-13D	-0.01152	3.30930	-0.00276	3.35436	-0.00097	0.00196	4.04093	-0.00177	0.01721	0.00065	-0.00053	0.00124
1111185-13L 5X	-0.01384	0.39649	-0.00302	0.64159	-0.00102	-0.00185	0.85024	-0.00025	-0.00442	-0.00079	L-0.00567	0.00165
1111185-13MS	0.95240	42.02031	0.50182	40.06988	0.46702	0.95945	41.14497	0.46312	0.02635	0.47002	0.47155	0.46925
CCV	19.96886	51.11134	0.52904	49.67857	0.95849	0.98686	48.33063	0.95019	4.88158	0.96728	0.96897	0.96644
CCB	-0.00834	-0.29803	-0.00308	-0.04133	-0.00082	-0.00176	0.12488	-0.00222	-0.01396	-0.00041	-0.00243	0.00060
1111185-13MSD	0.94714	41.83431	0.49897	40.16685	0.46482	0.95444	41.00152	0.45790	0.02245	0.46994	0.46927	0.47027
1111185-24	1.73473	2.74830	0.00303	13.07607	0.39599	-0.00139	1.90397	-0.00131	0.02501	0.00128	0.00035	0.00174
1111185-25	0.50718	2.45886	0.00159	11.89331	0.25285	-0.00328	1.86601	-0.00239	-0.01235	-0.00014	-0.00033	-0.00005
1111185-26	0.02051	2.15301	0.00075	11.37333	0.00020	-0.00093	2.28242	-0.00312	0.00122	-0.00028	-0.00169	0.00043
1111185-27	-0.01026	2.15848	0.00077	11.42445	-0.00024	-0.00116	2.26589	-0.00252	-0.01383	-0.00134	-0.00259	-0.00072
1111185-28	0.05082	2.18037	0.00095	11.77013	0.00103	-0.00052	2.20844	-0.00314	-0.00953	-0.00058	-0.00209	0.00018
1111185-29	-0.00986	2.14553	0.00084	11.58417	-0.00033	-0.00227	2.18225	-0.00197	-0.01141	-0.00161	L-0.00398	-0.00043
1111185-30	0.18772	2.09246	0.00045	11.89569	0.00914	-0.00277	2.21209	-0.00261	0.00499	0.00056	L-0.00411	0.00289
1111185-31	-0.00463	2.06291	0.00031	11.68245	-0.00024	-0.00208	2.21179	-0.00237	-0.01020	0.00022	-0.00209	0.00137
1111185-32	0.00738	2.10741	0.00043	11.73490	0.00010	-0.00162	2.18119	-0.00217	-0.01275	0.00123	-0.00110	0.00239
CCV	19.84420	51.03695	0.52757	49.43533	0.95077	0.97716	48.26753	0.95112	4.82622	0.96008	0.96249	0.95888
CCB	-0.00741	-0.30460	-0.00308	-0.04080	-0.00077	-0.00227	0.12652	-0.00299	-0.00791	-0.00063	L-0.00330	0.00070
1111185-33	-0.00847	2.07987	0.00039	11.63980	-0.00024	-0.00213	2.18161	-0.00118	-0.01530	-0.00047	L-0.00358	0.00108
1111185-34	-0.01464	-0.31846	-0.00324	-0.05875	-0.00107	-0.00130	0.11571	-0.00131	-0.01947	-0.00055	0.00009	-0.00086
1111185-35	-0.01006	-0.28855	-0.00314	-0.06166	-0.00112	-0.00195	0.12022	-0.00232	-0.01221	-0.00033	-0.00119	0.00011
1111205-1	-0.01298	H399.22227	0.16891	H891.05343	0.00719	0.00416	H446.18816	-0.00059	0.07554	-0.00074	0.00084	-0.00152
1111205-2	-0.00967	H393.82520	0.16591	H880.76269	0.01188	0.00549	H445.43789	0.00019	0.08239	-0.00258	-0.00219	-0.00278
1111185-4 5X	0.01408	12.75640	-0.00246	1.43055	0.03030	0.00311	48.98243	-0.00202	-0.00348	-0.00058	L-0.00323	0.00075
1111185-5 5X	-0.00436	12.54284	-0.00257	1.22537	0.03117	0.00375	47.60564	-0.00120	-0.01463	-0.00168	L-0.00341	-0.00081
CCV	0.19973	3.85389	0.01519	5.20341	0.03108	0.01899	4.33012	0.08236	0.18966	0.00619	0.00510	0.00674
IP1SA	107.01942	-0.32211	-0.00271	268.14599	0.00196	-0.00332	0.14704	-0.00016	-0.00160	-0.00091	L-0.00429	0.00077
IP1SAB	107.42587	-0.30496	1.10295	268.47271	0.48031	0.98277	0.19662	0.94724	0.97957	0.05005	0.04505	0.05255
CCV	20.12307	50.81140	0.52639	50.06679	0.96591	0.98180	48.15329	0.94561	4.87859	0.97733	0.97374	0.97912
CCB	-0.00575	-0.27450	-0.00296	-0.03684	-0.00073	-0.00245	0.13742	-0.00274	-0.01195	-0.00270	L-0.00640	-0.00086
Pb/Ba 1 11/16/11 10X	0.01282	0.55571	-0.00261	-0.05004	-0.00019	0.00233	H521.70435	-0.00118	0.03038	-0.00103	0.00132	-0.00221

Sample Id1	Fe	K	Li	Mg	Mn	Mo	Na	Ni	P	Pb	Pb I	Pb II
Pb/Ba 2 11/16/11 10X	0.22383	1.03336	-0.00261	-0.04160	0.00079	-0.00286	H478.97148	0.00021	0.04745	0.00949	0.01097	0.00874
Pb/Ba 3 11/16/11 10X	0.03126	1.23344	-0.00230	-0.03948	0.00040	0.01068	H497.29756	-0.00127	0.04355	-0.00037	0.00168	-0.00140

Sample Id1	S	Sb	Se	Se I	Se II	Si	Sn	Sr	Th	Ti	Tl	U
ZZZ	-0.01566	1.93842	4.72124	4.75466	4.70456	46.88828	9.63851	9.68130	1.87096	9.35318	4.91030	-0.09853
MIXBHGH	-0.00983	1.96188	4.88574	4.79834	4.92937	48.73637	9.55422	9.72803	1.94922	9.73257	4.77355	-0.08478
MIXAHGH	-0.00011	0.01220	-0.00514	L-0.01872	0.00164	-0.00710	0.00184	0.00899	-0.03935	-0.00041	0.00677	0.12066
MIXCHGH	H50.11387	0.00226	-0.00047	L-0.00963	0.00410	-0.03833	0.02103	-0.00037	L-0.44471	0.00775	0.00056	49.58772
ICV	2.58139	0.25550	0.50001	0.49961	0.50021	2.49181	0.49507	0.26162	0.15406	0.24405	0.24540	2.45621
ZZZ	-0.02926	-0.00076	0.00063	L-0.00691	0.00439	-0.02162	-0.00496	-0.00339	-0.00671	-0.00225	0.00469	-0.03553
ICB	-0.02149	-0.00015	-0.00284	L-0.00800	-0.00027	-0.02206	-0.00069	-0.00343	-0.00836	-0.00239	0.00051	-0.03597
CRI	0.20008	0.12829	0.00835	0.00367	0.01069	0.09847	0.09818	0.01954	0.00001	0.01921	0.02150	0.18930
ICSA	0.03293	-0.00423	-0.00336	L-0.02015	0.00502	-0.02327	-0.00176	-0.00185	L-0.05832	-0.00071	0.00675	0.03623
ICSAB	1.10358	0.56295	0.04800	0.02483	0.05957	0.96046	1.00101	1.06322	-0.00114	0.95339	0.10712	10.06038
CCV	5.22958	0.48066	1.03149	1.04360	1.02543	5.03037	1.01712	0.53385	0.34267	0.49293	0.50862	4.94364
CCB	-0.02537	-0.00377	-0.00005	-0.00435	0.00209	-0.01565	-0.00475	-0.00296	-0.00797	-0.00189	0.00337	-0.03067
F111115-1MB	-0.02149	-0.00355	-0.00127	L-0.00980	0.00299	-0.01738	-0.00240	-0.00341	-0.01049	-0.00249	-0.00320	-0.04530
F111115-1RVS	1.00062	0.08717	0.04930	0.04525	0.05132	0.26291	0.09046	0.04782	-0.01437	0.04542	0.09675	0.45407
F111115-1LCS	-0.01371	0.45183	1.93642	1.95991	1.92470	1.95960	0.48264	0.51311	-0.04182	0.46938	1.89739	-0.04241
1111119-1	7.88609	-0.00018	0.00243	0.00420	0.00155	3.97861	0.00892	0.07381	-0.01393	-0.00110	0.00664	-0.03736
1111150-1	H297.51827	0.00060	-0.00149	L-0.01095	0.00324	10.85743	-0.00475	2.50681	L-0.05463	-0.00372	0.00101	-0.02178
1111150-1D	H290.28078	0.00018	-0.00038	L-0.00883	0.00384	10.58062	-0.00048	2.44587	L-0.05725	-0.00355	0.00514	-0.00358
1111150-1L 5X	H66.09664	-0.00020	-0.00411	L-0.01150	-0.00042	2.12910	-0.00176	0.49917	-0.02364	-0.00250	0.00059	-0.02798
1111150-1MS	H289.07390	0.46359	2.09129	2.11553	2.07919	12.43884	0.49012	2.94372	L-0.06418	0.46155	1.92416	-0.04107
1111150-1MSD	H291.73862	0.46651	2.10274	2.12806	2.09009	12.53362	0.49781	2.97018	L-0.06091	0.46239	1.94793	-0.01845
1111179-1	42.17804	0.00100	0.00149	L-0.00613	0.00529	4.52644	0.00059	0.29958	-0.00519	-0.00169	0.00151	-0.02976
CCV	5.32070	0.48705	1.03719	1.05761	1.02700	5.04873	1.01584	0.54064	0.32724	0.49047	0.52082	5.01092
CCB	-0.01760	-0.00377	-0.00184	L-0.00902	0.00174	-0.01709	-0.00539	-0.00323	-0.00386	-0.00210	0.00214	-0.04175
1111184-1	3.41403	-0.00095	0.00021	L-0.00785	0.00424	4.07394	-0.00368	1.16791	-0.02129	-0.00242	0.00200	-0.04219
1111179-1 5X	8.17073	-0.00264	-0.00073	L-0.01057	0.00419	0.85502	-0.00368	0.05743	-0.00509	-0.00217	0.00365	-0.03997
CCV	5.13845	0.47125	1.00947	1.02003	1.00420	4.91348	0.98514	0.52434	0.30817	0.47855	0.50103	4.86833
CCB	-0.01566	-0.00264	-0.00244	L-0.00971	0.00119	-0.02141	-0.00496	-0.00306	-0.00534	-0.00209	0.00180	-0.02710
IP111116-3MB	-0.01566	-0.00062	-0.00435	L-0.01866	0.00279	-0.02346	-0.00411	-0.00337	-0.00467	-0.00221	0.00510	-0.03420
IP111116-3RVS	1.00256	0.08894	0.04946	0.04705	0.05067	0.25925	0.09751	0.04778	-0.01252	0.04492	0.10099	0.46428
IP111116-3LCS	-0.01371	0.46130	2.04486	2.07459	2.03001	1.98242	0.48820	0.51384	-0.04264	0.46843	1.94801	-0.05262
1111185-2	29.32169	-0.00065	0.00371	L-0.00529	0.00820	2.22530	-0.00048	0.34956	-0.01043	-0.00191	0.00169	-0.03688
1111185-3	29.33128	0.00046	-0.00021	-0.00331	0.00133	2.19255	0.00102	0.34805	-0.01594	-0.00239	0.00175	-0.00624
1111185-4	H149.46943	-0.00189	0.00105	-0.00148	0.00232	4.81046	0.00187	0.08977	-0.01504	-0.00142	0.00658	-0.03297
1111185-5	H150.77058	-0.00412	-0.00259	L-0.01619	0.00420	4.81731	-0.00304	0.09137	-0.00358	-0.00214	-0.00292	-0.05154
1111185-6	10.41551	-0.00241	-0.00124	L-0.00625	0.00127	8.15325	-0.00133	0.21215	-0.01207	-0.00119	0.00092	-0.04235
1111185-7	10.58957	-0.00439	0.00093	L-0.00694	0.00486	8.16958	-0.00155	0.21547	-0.01123	-0.00253	0.00187	-0.04274
1111185-8	6.47977	-0.00123	0.00091	-0.00294	0.00284	3.27559	-0.00325	0.30460	-0.02052	-0.00234	-0.00150	-0.02755
CCV	5.09579	0.46536	0.99737	1.01162	0.99025	4.86420	0.98131	0.52179	0.30749	0.47150	0.48877	4.83882
CCB	-0.02537	0.00010	0.00032	-0.00263	0.00179	-0.01695	-0.00240	-0.00320	-0.00727	-0.00220	0.00238	-0.03154
1111185-9	6.53790	-0.00292	0.00104	L-0.00607	0.00460	3.21579	-0.00304	0.31577	-0.03056	-0.00256	0.00389	-0.04531
1111185-10	4.89995	-0.00230	0.00060	L-0.00520	0.00349	1.75638	-0.00304	0.82816	-0.03231	-0.00259	0.00487	-0.03243
1111185-11	4.99496	-0.00103	-0.00026	-0.00319	0.00120	2.18385	-0.00325	0.93092	-0.03076	-0.00255	0.00414	-0.03601
1111185-12	3.51882	0.00021	0.00229	-0.00133	0.00410	1.32650	-0.00026	0.11532	-0.01552	-0.00179	0.00499	-0.04843
1111185-12D	3.57897	-0.00119	0.00075	-0.00475	0.00350	1.35748	-0.00112	0.11742	-0.01473	-0.00168	0.00262	-0.04044
1111185-12L 5X	0.69559	-0.00115	-0.00422	L-0.00972	-0.00147	0.25550	-0.00325	0.02082	-0.01019	-0.00229	0.00173	-0.03953
1111185-12MS	3.61390	0.45896	2.06892	2.09910	2.05385	3.40966	0.49267	0.64210	-0.04565	0.47810	1.96565	-0.04246
1111185-12MSD	3.66046	0.46305	2.07222	2.10047	2.05811	3.41948	0.49821	0.64646	-0.04544	0.47931	1.98837	-0.04645
1111185-14	3.57897	-0.00245	0.00375	-0.00287	0.00706	1.36419	-0.00155	0.11821	-0.01164	-0.00149	0.00628	-0.02802
1111185-15	3.58479	-0.00154	0.00455	-0.00014	0.00689	1.36083	-0.00646	0.12040	-0.01630	-0.00229	0.00046	-0.02754

Sample Id1	S	Sb	Se	Se I	Se II	Si	Sn	Sr	Th	Ti	Tl	U
CCV	5.20825	0.46378	1.01515	1.01819	1.01363	4.95193	0.98578	0.52165	0.31403	0.48090	0.48879	4.89222
CCB	-0.01954	-0.00136	0.00212	-0.00302	0.00469	-0.01608	-0.00390	-0.00311	-0.00986	-0.00217	0.00157	-0.02977
1111185-16	4.88249	-0.00107	0.00424	L-0.00520	0.00895	1.64958	-0.00667	0.11732	-0.01841	-0.00235	0.00487	-0.03775
1111185-17	4.84371	0.00060	0.00221	-0.00045	0.00354	1.61884	-0.00475	0.11589	-0.01453	-0.00213	0.00307	-0.02222
1111185-18	2.04554	-0.00101	-0.00072	L-0.00559	0.00171	4.07249	-0.00796	5.56188	L-0.06667	0.00094	0.00254	-0.04436
1111185-19	4.42480	-0.00503	0.00033	-0.00435	0.00266	4.97791	-0.00369	0.17640	-0.02755	0.00101	0.00470	-0.02542
1111185-20	4.40928	-0.00158	-0.00350	L-0.00917	-0.00067	4.79714	-0.00261	0.17576	-0.02838	-0.00251	0.00254	-0.04041
1111185-22	4.01745	-0.00340	0.00097	L-0.00504	0.00397	2.40637	-0.00500	0.07523	-0.01138	0.02874	0.00060	0.04003
1111185-23	4.09310	-0.00086	-0.00068	-0.00329	0.00063	0.49301	-0.00283	0.07228	-0.01062	0.00316	0.00068	0.05306
IP111116-4MB	-0.02149	-0.00088	-0.00120	-0.00317	-0.00022	-0.01017	0.00102	-0.00353	0.01004	-0.00173	-0.00018	-0.02754
IP111116-4RVS	1.03364	0.09106	0.05146	0.04860	0.05288	0.27408	0.10072	0.04880	-0.01307	0.04597	0.10071	0.47048
CCV	5.16365	0.46388	1.00338	1.01640	0.99688	4.92402	0.98535	0.51982	0.30722	0.47811	0.48745	4.86042
CCB	-0.02926	-0.00376	-0.00005	L-0.01134	0.00559	-0.02390	-0.00325	-0.00339	-0.01125	-0.00234	0.00133	-0.02799
IP111116-4LCS	-0.01954	0.44791	2.03368	2.07910	2.01100	1.97154	0.48158	0.50824	-0.04548	0.46577	1.92995	-0.04685
1111137-1	4.59160	-0.00052	0.00260	-0.00033	0.00407	11.04369	-0.00219	0.70401	L-0.05709	-0.00252	0.00396	-0.04324
1111138-1	2.32319	-0.00073	-0.00133	L-0.01255	0.00428	8.73434	-0.00133	0.76532	L-0.05074	-0.00251	0.00622	-0.03268
1111140-1	17.89509	-0.00286	-0.00226	L-0.00956	0.00139	9.40166	0.00059	0.07046	-0.02895	-0.00243	0.00360	-0.03111
1111160-1	24.26478	0.00161	0.00426	L-0.01850	0.01562	H81.78869	0.00527	1.24787	0.03342	0.19908	0.00273	0.05359
1111162-16	13.41129	-0.00146	-0.00273	L-0.00993	0.00087	6.71824	-0.00372	0.25221	-0.01134	0.03261	0.00323	-0.03544
1111185-13	3.61002	0.00064	0.00268	0.00016	0.00394	1.36823	-0.00603	0.12225	-0.00944	-0.00240	0.00231	-0.04263
1111185-13D	3.50135	-0.00196	0.00371	-0.00397	0.00755	1.33512	-0.00411	0.11921	-0.00895	-0.00238	0.00364	-0.04574
1111185-13L 5X	0.69171	-0.00460	-0.00068	L-0.01134	0.00464	0.25409	-0.00283	0.02152	-0.00538	-0.00226	-0.00290	-0.02399
1111185-13MS	3.52270	0.45135	1.97445	2.00714	1.95813	3.27720	0.47796	0.62790	-0.04323	0.45542	1.90290	-0.04595
CCV	5.10743	0.46177	1.00284	1.01272	0.99791	4.89044	0.97960	0.51984	0.30836	0.47342	0.50018	4.86361
CCB	-0.01954	-0.00502	-0.00242	L-0.01064	0.00169	-0.02419	-0.00411	-0.00337	-0.00660	-0.00227	-0.00232	-0.02532
1111185-13MSD	3.48971	0.44443	1.97177	1.99461	1.96036	3.26253	0.47327	0.62077	-0.04348	0.45366	1.90405	-0.04284
1111185-24	2.90750	0.00010	0.00331	-0.00035	0.00514	5.48739	-0.00198	0.27993	-0.02632	0.00844	0.00044	-0.03982
1111185-25	3.58479	-0.00391	0.00104	-0.00456	0.00384	4.63874	-0.00155	0.25397	-0.02179	-0.00250	0.00194	-0.03632
1111185-26	5.06283	-0.00003	-0.00052	-0.00466	0.00154	3.57851	-0.00155	0.21854	-0.02324	-0.00157	0.00273	-0.03333
1111185-27	5.01435	-0.00249	-0.00309	L-0.00925	-0.00002	3.53794	-0.00432	0.21939	-0.01992	-0.00251	0.00057	-0.03863
1111185-28	5.20437	-0.00192	-0.00323	L-0.00980	0.00004	3.35176	0.00123	0.22141	-0.01661	-0.00175	0.00141	-0.03424
1111185-29	5.10936	-0.00299	-0.00054	L-0.01212	0.00524	3.23796	-0.00496	0.21771	-0.01453	-0.00232	-0.00354	-0.03242
1111185-30	5.43509	-0.00412	-0.00025	L-0.01185	0.00553	3.12499	-0.00112	0.21153	-0.02090	0.00228	0.00013	-0.04631
1111185-31	5.34978	-0.00516	-0.00343	L-0.01369	0.00169	2.95317	-0.00176	0.20820	-0.01891	-0.00224	0.00678	-0.04441
1111185-32	5.32652	-0.00425	-0.00054	L-0.00582	0.00209	3.01640	-0.00496	0.20900	-0.01885	-0.00168	-0.00139	-0.02844
CCV	5.09579	0.46262	0.99958	1.02821	0.98529	4.85378	0.97470	0.51872	0.30445	0.46785	0.49161	4.83226
CCB	-0.02926	-0.00250	0.00255	-0.00225	0.00494	-0.02651	-0.00219	-0.00334	-0.00051	-0.00216	-0.00366	-0.03864
1111185-33	5.32264	-0.00249	-0.00196	L-0.00816	0.00114	2.96735	-0.00475	0.20772	-0.02226	-0.00234	0.00307	-0.03198
1111185-34	-0.02149	-0.00087	-0.00288	-0.00411	-0.00227	-0.02527	-0.00155	-0.00356	-0.00706	-0.00230	0.00359	-0.03242
1111185-35	-0.02343	-0.00095	0.00296	0.00219	0.00334	-0.02417	-0.00304	-0.00353	-0.00411	-0.00224	0.00365	-0.03908
1111205-1	H499.75141	0.00107	-0.00412	L-0.01135	-0.00052	1.80898	0.00230	5.11157	L-0.06586	-0.00377	0.00945	-0.03242
1111205-2	H496.00718	-0.00222	-0.00220	-0.00427	-0.00117	1.90025	-0.00475	5.04494	L-0.05853	-0.00344	0.00493	-0.03154
1111185-4 5X	32.04752	-0.00210	-0.00223	L-0.00746	0.00039	0.95066	-0.00496	0.01741	-0.00360	-0.00248	-0.00016	-0.03288
1111185-5 5X	31.92500	-0.00110	0.00225	-0.00395	0.00534	0.94628	-0.00496	0.01635	-0.00441	-0.00236	0.00169	-0.02799
CCV	0.21368	0.11310	0.00813	-0.00062	0.01249	0.09645	0.10096	0.01971	0.00761	0.01853	0.02074	0.18131
IP108A	0.04848	0.00017	-0.00252	L-0.01985	0.00613	-0.02929	-0.00155	-0.00187	-0.04851	-0.00066	0.00785	0.01451
IP108B	1.10164	0.55281	0.05102	0.03722	0.05791	0.93341	0.99913	1.04415	-0.00244	0.92312	0.10310	9.85340
CCV	5.16753	0.46404	1.01432	1.02987	1.00655	4.90945	0.98727	0.51748	0.30751	0.47719	0.49687	4.83296
CCB	-0.02537	0.00017	0.00092	L-0.00684	0.00479	-0.02381	-0.00219	-0.00329	-0.00829	-0.00217	0.00429	-0.03464
Pb/Ba 1 11/16/11 10X	H986.12590	-0.00205	0.00769	0.00896	0.00705	1.65278	0.01939	-0.00261	-0.01020	-0.00121	0.00430	-0.02356

Sample Id1	S	Sb	Se	Se I	Se II	Si	Sn	Sr	Th	Ti	Tl	U
Pb/Ba 2 11/16/11 10X	H997.65839	-0.00106	0.00226	0.00061	0.00309	1.16940	0.03220	-0.00154	-0.01258	-0.00110	0.00589	-0.03036
Pb/Ba 3 11/16/11 10X	H986.31742	-0.00072	0.01464	0.02140	0.01126	0.97597	0.03071	-0.00320	-0.01203	-0.00139	0.00286	-0.03156

Sample Id1	V	Zn	Zr
ZZZ	4.78117	9.10390	L-0.07529
MIXBHIGH	4.81092	9.62547	L-0.07846
MIXAHIGH	-0.00714	-0.00538	0.00764
MIXCHIGH	-0.00896	-0.00022	4.93900
ICV	0.24885	0.48282	0.49698
ZZZ	-0.00088	-0.00295	0.00040
ICB	-0.00114	-0.00174	0.00022
CRI	0.10400	0.04760	0.05218
ICSA	-0.00533	-0.00235	0.00640
ICSAB	0.48869	0.91478	0.49503
CCV	0.50258	0.98302	0.99617
CCB	-0.00060	-0.00189	0.00106
F111115-1MB	-0.00165	0.00266	0.00017
F111115-1RVS	0.04888	0.04472	0.04868
F111115-1LCS	0.48932	0.46824	0.00587
1111119-1	-0.00031	0.07295	0.00120
1111150-1	0.00014	0.00524	-0.00043
1111150-1D	-0.00037	0.00464	-0.00017
1111150-1L 5X	-0.00032	-0.00052	0.00068
1111150-1MS	0.48359	0.45791	0.00026
1111150-1MSD	0.48713	0.46778	-0.00004
1111179-1	-0.00023	0.03804	-0.00093
CCV	0.50614	0.97146	1.00367
CCB	-0.00055	-0.00235	0.00056
1111184-1	-0.00107	0.00236	0.00099
1111179-1 5X	-0.00126	0.00661	0.00006
CCV	0.49167	0.93757	0.97647
CCB	-0.00046	-0.00189	0.00077
IP111116-3MB	-0.00098	-0.00128	-0.00001
IP111116-3RVS	0.04814	0.04532	0.04924
IP111116-3LCS	0.49146	0.47614	0.00482
1111185-2	0.00092	0.00160	-0.00023
1111185-3	0.00140	0.00023	0.00037
1111185-4	-0.00034	0.00631	-0.00017
1111185-5	-0.00113	0.00843	-0.00155
1111185-6	-0.00099	0.02635	-0.00094
1111185-7	-0.00138	0.02635	-0.00142
1111185-8	-0.00048	-0.00083	0.00062
CCV	0.48700	0.91857	0.96969
CCB	-0.00030	-0.00250	0.00080
1111185-9	-0.00076	0.00084	0.00319
1111185-10	-0.00055	0.00539	0.00138
1111185-11	-0.00066	0.00327	0.00107
1111185-12	0.00269	0.00115	0.00083
1111185-12D	0.00269	-0.00007	0.00079
1111185-12L 5X	-0.00021	-0.00204	0.00030
1111185-12MS	0.50175	0.48555	0.00305
1111185-12MSD	0.50338	0.48358	0.00180
1111185-14	0.00283	0.00115	0.00004
1111185-15	0.00252	-0.00098	0.00036

Sample Id1	V	Zn	Zr
CCV	0.49151	0.94730	0.97331
CCB	-0.00114	-0.00250	0.00098
1111185-16	-0.00065	0.00145	0.00251
1111185-17	-0.00007	0.00008	0.00119
1111185-18	0.00054	0.04380	0.00330
1111185-19	-0.00044	-0.00113	0.00043
1111185-20	-0.00098	-0.00174	0.00058
1111185-22	0.00336	0.00099	0.00415
1111185-23	0.00207	-0.00083	0.00156
IP111116-4MB	-0.00077	0.00115	-0.00114
IP111116-4RVS	0.04984	0.04714	0.04738
CCV	0.48998	0.94092	0.97179
CCB	-0.00084	-0.00280	0.00109
IP111116-4LCS	0.48750	0.46733	0.00477
1111137-1	-0.00064	0.00160	0.00154
1111138-1	-0.00055	0.06794	0.00243
1111140-1	-0.00048	0.00737	-0.00041
1111160-1	0.19037	0.41933	-0.00441
1111162-16	0.00438	0.00646	0.00040
1111185-13	0.00235	-0.00128	0.00006
1111185-13D	0.00231	-0.00098	-0.00014
1111185-13L 5X	-0.00039	-0.00128	-0.00029
1111185-13MS	0.48413	0.45609	0.00231
CCV	0.48807	0.92800	0.96799
CCB	-0.00060	-0.00265	0.00040
1111185-13MSD	0.48117	0.45107	0.00357
1111185-24	0.00062	0.00160	0.00031
1111185-25	-0.00053	-0.00220	0.00001
1111185-26	-0.00036	-0.00204	0.00043
1111185-27	-0.00039	-0.00098	0.00020
1111185-28	-0.00027	-0.00022	0.00011
1111185-29	-0.00067	-0.00250	-0.00031
1111185-30	0.00002	0.01086	-0.00002
1111185-31	-0.00046	0.00266	0.00045
1111185-32	-0.00037	0.00160	0.00009
CCV	0.48516	0.91614	0.96624
CCB	-0.00102	-0.00326	0.00043
1111185-33	-0.00044	-0.00052	0.00131
1111185-34	-0.00126	-0.00204	0.00007
1111185-35	-0.00065	-0.00189	-0.00006
1111205-1	0.00317	-0.00007	0.00424
1111205-2	0.00333	0.00084	0.00316
1111185-4 5X	-0.00116	0.00054	-0.00021
1111185-5 5X	-0.00053	0.00145	-0.00027
CCV	0.10439	0.04699	0.05042
ICSA	-0.00516	-0.00356	0.00566
IP,SAB	0.48271	0.89699	0.48685
CCV	0.48921	0.94836	0.97156
CCB	-0.00121	-0.00265	0.00085
Pb/Ba 1 11/16/11 10X	-0.00083	0.00069	0.00390

Sample Id1	V	Zn	Zr
Pb/Ba 2 11/16/11 10X	-0.00077	0.01010	0.00244
Pb/Ba 3 11/16/11 10X	-0.00057	0.00266	0.00235

Method : Paragon File : 111117A
 SampleId1 : RL SampleId2 :
 Analysis commenced : 11/17/2011 12:23:26
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/18/2011 12:17:00
 [STD]
 Position : TUBE2

Raw intensities

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	Reading								
#1	0.110	0.187	0.185	0.144	0.027	0.479	0.138	0.136	0.109
#2	0.111	0.186	0.183	0.144	0.027	0.478	0.140	0.135	0.112
Mean	0.111	0.186	0.184	0.144	0.027	0.478	0.139	0.136	0.110
%RSD	0.447	0.228	0.808	0.098	0.796	0.133	1.223	0.574	1.602
	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	Reading								
#1	0.100	0.194	0.062	0.094	1.004	0.384	0.159	0.014	0.080
#2	0.101	0.193	0.062	0.094	1.007	0.385	0.157	0.014	0.081
Mean	0.100	0.193	0.062	0.094	1.005	0.384	0.158	0.014	0.080
%RSD	0.564	0.403	0.000	0.376	0.197	0.074	0.671	0.000	0.970
	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	Reading								
#1	1.055	0.219	0.099	2.060	0.605	0.011	0.175	0.375	0.251
#2	1.056	0.222	0.098	2.059	0.610	0.010	0.175	0.375	0.253
Mean	1.056	0.221	0.099	2.060	0.608	0.011	0.175	0.375	0.252
%RSD	0.074	0.994	0.573	0.024	0.547	2.668	0.000	0.038	0.562
	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	Reading								
#1	0.303	0.070	0.157	0.544	0.319	0.223	0.166	0.134	0.023
#2	0.303	0.070	0.156	0.546	0.317	0.222	0.167	0.134	0.022
Mean	0.303	0.070	0.156	0.545	0.318	0.222	0.167	0.134	0.022
%RSD	0.000	0.406	0.045	0.208	0.422	0.350	0.297	0.000	1.263
	Zr	Pb	Se						
	Reading	Reading	Reading						
#1	0.288								
#2	0.289								
Mean	0.289	0.000	0.000						
%RSD	0.245	0.000	0.000						

Method : Paragon File : 111117A
 SampleId1 : RL2 SampleId2 :
 Analysis commenced : 11/17/2011 12:25:50
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/18/2011 12:17:00
 [STD]
 Position : TUBE3

Raw intensities

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	Reading								
#1	0.117	0.232	0.196	0.287	0.037	0.630	0.145	0.298	0.125
#2	0.118	0.234	0.197	0.285	0.037	0.630	0.144	0.301	0.126
Mean	0.117	0.233	0.196	0.286	0.037	0.630	0.144	0.299	0.125
%RSD	0.302	0.395	0.432	0.470	0.000	0.011	0.637	0.614	0.451

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	Reading								
#1	0.107	0.208	0.066	0.182	1.358	0.874	0.256	0.019	0.108
#2	0.106	0.208	0.066	0.184	1.361	0.875	0.258	0.019	0.110
Mean	0.106	0.208	0.066	0.183	1.360	0.875	0.257	0.019	0.109
%RSD	0.199	0.034	0.107	0.888	0.114	0.049	0.440	0.000	1.039

	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	Reading								
#1	2.665	0.260	0.145	2.080	0.625	0.014	0.188	0.384	0.264
#2	2.671	0.258	0.141	2.089	0.622	0.014	0.190	0.380	0.267
Mean	2.668	0.259	0.143	2.084	0.623	0.014	0.189	0.382	0.265
%RSD	0.156	0.628	1.830	0.309	0.340	1.554	0.524	0.685	0.666

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	Reading								
#1	0.387	0.076	0.348	0.573	0.528	0.236	0.192	0.144	0.027
#2	0.389	0.077	0.349	0.573	0.529	0.238	0.194	0.143	0.027
Mean	0.388	0.076	0.348	0.573	0.528	0.237	0.193	0.143	0.027
%RSD	0.456	0.185	0.183	0.012	0.174	0.626	0.661	0.296	0.530

	Zr	Pb	Se
	Reading	Reading	Reading
#1	0.368		
#2	0.369		
Mean	0.368	0.000	0.000
%RSD	0.211	0.000	0.000

Method : Paragon

File : 111117A

Printed : 11/18/2011 12:17:01

SampleId1 : B3

SampleId2 :

[STD]

Analysis commenced : 11/17/2011 12:28:12

Dilution ratio : 1.00000 to 1.00000 Tray :

Position : TUBE4

Raw intensities

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	Reading								
#1	0.141	0.165	0.228	0.198	0.238	0.992	0.137	0.041	0.393
#2	0.139	0.166	0.224	0.197	0.239	0.994	0.135	0.043	0.393
Mean	0.140	0.165	0.226	0.198	0.239	0.993	0.136	0.042	0.393
%RSD	0.757	0.385	1.314	0.143	0.356	0.178	0.937	2.859	0.090

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	Reading								

	Reading								
#1	0.169	0.502	0.150	0.043	0.715	0.102	0.102	0.117	0.192
#2	0.169	0.500	0.150	0.045	0.712	0.102	0.104	0.117	0.190
Mean	0.169	0.501	0.150	0.044	0.714	0.102	0.103	0.117	0.191
%RSD	0.167	0.296	0.141	2.560	0.327	0.485	0.962	0.241	0.555

	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	Reading								
#1	0.106	0.531	0.272	2.496	0.839	0.009	0.188	0.414	0.302
#2	0.107	0.534	0.274	2.494	0.840	0.009	0.187	0.412	0.303
Mean	0.106	0.533	0.273	2.495	0.840	0.009	0.188	0.413	0.302
%RSD	0.266	0.305	0.700	0.045	0.067	2.344	0.302	0.308	0.234

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	Reading								
#1	0.612	0.093	0.863	0.551	1.160	0.266	0.150	0.244	0.057
#2	0.616	0.094	0.868	0.549	1.161	0.264	0.149	0.244	0.057
Mean	0.614	0.093	0.866	0.550	1.161	0.265	0.150	0.244	0.057
%RSD	0.495	0.531	0.376	0.257	0.097	0.454	0.566	0.087	0.000

	Zr	Pb	Se
	Reading	Reading	Reading
#1	0.263		
#2	0.259		
Mean	0.261	0.000	0.000
%RSD	1.219	0.000	0.000

Method : Paragon

File : 111117A

Printed : 11/18/2011 12:17:01

SampleId1 : B2

SampleId2 :

[STD]

Analysis commenced : 11/17/2011 12:30:37

Dilution ratio : 1.00000 to 1.00000 Tray :

Position : TUBE5

Raw intensities

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	Reading								
#1	0.444	0.171	0.620	1.337	2.165	6.084	0.138	0.044	2.923
#2	0.445	0.171	0.621	1.340	2.178	6.115	0.136	0.044	2.943
Mean	0.445	0.171	0.620	1.339	2.172	6.099	0.137	0.044	2.933
%RSD	0.111	0.041	0.182	0.169	0.397	0.363	0.932	0.161	0.470

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	Reading								
#1	0.786	3.264	0.957	0.045	0.696	0.100	0.102	1.046	1.272
#2	0.787	3.280	0.960	0.046	0.693	0.099	0.101	1.051	1.276
Mean	0.786	3.272	0.959	0.045	0.695	0.099	0.101	1.048	1.274
%RSD	0.162	0.361	0.258	0.623	0.316	0.213	0.279	0.331	0.255

	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	Reading	Reading	Reading	Reading	Reading	Reading	Reading	Reading	Reading

#1	0.116	3.469	1.951	6.310	2.905	0.009	0.335	0.700	0.763
#2	0.116	3.465	1.966	6.308	2.904	0.009	0.334	0.707	0.763
Mean	0.116	3.467	1.959	6.309	2.904	0.009	0.334	0.704	0.763
%RSD	0.122	0.078	0.538	0.018	0.024	3.074	0.085	0.633	0.019

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	Reading								
#1	3.730	0.299	8.247	0.707	9.555	0.681	0.146	1.252	0.380
#2	3.756	0.301	8.288	0.709	9.598	0.688	0.146	1.258	0.382
Mean	3.743	0.300	8.267	0.708	9.576	0.684	0.146	1.255	0.381
%RSD	0.484	0.613	0.348	0.190	0.323	0.744	0.048	0.349	0.371

	Zr	Pb	Se
	Reading	Reading	Reading
#1	0.301		
#2	0.296		
Mean	0.298	0.000	0.000
%RSD	1.304	0.000	0.000

Method : Paragon File : 111117A Printed : 11/18/2011 12:17:01
SampleId1 : B1 SampleId2 : [STD]
Analysis commenced : 11/17/2011 12:32:59
Dilution ratio : 1.00000 to 1.00000 Tray : Position : TUBE6

Raw intensities

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	Reading	Reading	Reading	Reading	Reading	Reading	Reading	Reading	Reading
#1	3.529	0.238	4.572	12.734	20.848	57.176	0.186	0.056	27.778
#2	3.531	0.240	4.601	12.780	20.950	57.255	0.187	0.057	27.805
Mean	3.530	0.239	4.586	12.757	20.899	57.215	0.187	0.057	27.791
%RSD	0.042	0.385	0.449	0.259	0.342	0.098	0.379	1.375	0.071

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	Reading	Reading	Reading	Reading	Reading	Reading	Reading	Reading	Reading
#1	7.019	31.057	9.098	0.067	0.720	0.109	0.114	10.071	12.027
#2	7.023	31.102	9.136	0.068	0.715	0.109	0.115	10.088	12.034
Mean	7.021	31.079	9.117	0.068	0.718	0.109	0.114	10.080	12.030
%RSD	0.038	0.102	0.296	1.252	0.483	0.259	0.247	0.123	0.046

	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	Reading	Reading	Reading	Reading	Reading	Reading	Reading	Reading	Reading
#1	0.188	32.936	17.912	45.135	23.691	0.012	1.832	3.746	5.335
#2	0.188	32.960	17.927	45.093	23.793	0.011	1.841	3.746	5.381
Mean	0.188	32.948	17.920	45.114	23.742	0.012	1.836	3.746	5.358
%RSD	0.188	0.052	0.062	0.067	0.301	2.460	0.312	0.011	0.612

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	Reading	Reading	Reading	Reading	Reading	Reading	Reading	Reading	Reading
#1	34.268	2.405	77.702	2.461	93.813	4.896	0.165	11.448	3.610

#2	34.420	2.407	78.094	2.468	94.174	4.913	0.163	11.470	3.611
Mean	34.344	2.406	77.898	2.464	93.993	4.905	0.164	11.459	3.611
%RSD	0.314	0.044	0.355	0.215	0.272	0.249	0.603	0.135	0.027

	Zr	Pb	Se
	Reading	Reading	Reading
#1	0.712		
#2	0.709		
Mean	0.710	0.000	0.000
%RSD	0.309	0.000	0.000

Method : Paragon

File : 111117A

Printed : 11/18/2011 12:17:02

SampleId1 : A5

SampleId2 :

[STD]

Analysis commenced : 11/17/2011 12:35:18

Dilution ratio : 1.00000 to 1.00000 Tray :

Position : TUBE7

Raw intensities

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	Reading								
#1	0.104	1.076	0.183	0.087	0.023	0.418	0.135	1.798	0.103
#2	0.105	1.076	0.187	0.085	0.024	0.420	0.131	1.797	0.106
Mean	0.104	1.076	0.185	0.086	0.023	0.419	0.133	1.798	0.105
%RSD	0.203	0.026	1.450	1.150	2.737	0.354	1.966	0.047	2.436

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	Reading								
#1	0.096	0.187	0.060	1.596	1.588	2.294	1.139	0.012	0.073
#2	0.097	0.188	0.060	1.595	1.588	2.286	1.137	0.013	0.073
Mean	0.097	0.188	0.060	1.595	1.588	2.290	1.138	0.012	0.073
%RSD	0.731	0.490	0.000	0.022	0.004	0.253	0.118	2.840	0.679

	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	Reading								
#1	2.339	0.199	0.080	2.040	0.606	0.009	0.171	0.374	0.254
#2	2.330	0.200	0.080	2.051	0.604	0.009	0.171	0.375	0.251
Mean	2.334	0.199	0.080	2.046	0.605	0.009	0.171	0.375	0.253
%RSD	0.273	0.319	0.178	0.384	0.304	0.764	0.041	0.208	0.839

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	Reading								
#1	0.279	0.068	0.062	0.575	0.226	0.224	0.152	0.128	0.021
#2	0.274	0.070	0.066	0.572	0.228	0.224	0.151	0.129	0.021
Mean	0.276	0.069	0.064	0.574	0.227	0.224	0.152	0.129	0.021
%RSD	1.202	1.437	4.104	0.382	0.530	0.063	0.140	0.659	1.688

	Zr	Pb	Se
	Reading	Reading	Reading
#1	0.242		
#2	0.243		

Mean 0.242 0.000 0.000 **UNDRGREEN**
 %RSD 0.438 0.000 0.000

Method : Paragon File : 111117A Printed : 11/18/2011 12:17:02
 SampleId1 : A4 SampleId2 : [STD]
 Analysis commenced : 11/17/2011 12:37:39
 Dilution ratio : 1.00000 to 1.00000 Tray : Position : TUBE8

Raw intensities

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	Reading	Reading							
#1	0.110	8.775	0.203	0.083	0.021	0.421	0.137	16.906	0.106
#2	0.109	8.794	0.206	0.082	0.022	0.423	0.135	16.916	0.108
Mean	0.109	8.784	0.205	0.082	0.021	0.422	0.136	16.911	0.107
%RSD	0.453	0.152	1.070	0.601	3.660	0.268	0.676	0.045	1.121

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	Reading	Reading	Reading	Reading	Reading	Reading	Reading	Reading	Reading
#1	0.100	0.206	0.060	14.743	7.496	20.743	10.066	0.013	0.079
#2	0.100	0.207	0.061	14.756	7.517	20.804	10.074	0.014	0.080
Mean	0.100	0.207	0.061	14.749	7.507	20.773	10.070	0.014	0.079
%RSD	0.142	0.411	0.468	0.062	0.202	0.208	0.051	3.143	0.267

	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	Reading	Reading	Reading	Reading	Reading	Reading	Reading	Reading	Reading
#1	19.208	0.203	0.085	2.295	0.682	0.010	0.203	0.424	0.292
#2	19.261	0.204	0.085	2.286	0.682	0.010	0.203	0.421	0.288
Mean	19.235	0.203	0.085	2.290	0.682	0.010	0.203	0.423	0.290
%RSD	0.194	0.348	0.083	0.269	0.021	1.473	0.000	0.452	0.805

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	Reading								
#1	0.290	0.076	0.046	0.877	0.235	0.250	0.183	0.145	0.024
#2	0.290	0.076	0.050	0.874	0.240	0.249	0.182	0.144	0.024
Mean	0.290	0.076	0.048	0.876	0.237	0.250	0.183	0.145	0.024
%RSD	0.073	0.373	5.880	0.250	1.521	0.340	0.348	0.294	0.893

	Zr	Pb	Se
	Reading	Reading	Reading
#1	0.259		
#2	0.257		
Mean	0.258	0.000	0.000
%RSD	0.302	0.000	0.000

Method : Paragon File : 111117A Printed : 11/18/2011 12:17:03
 SampleId1 : A3 SampleId2 : [STD]
 Analysis commenced : 11/17/2011 12:39:57
 Dilution ratio : 1.00000 to 1.00000 Tray : Position : TUBE9

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	Reading	Reading	Reading	Reading	Reading	Reading	Reading	Reading	Reading
#1	0.109	17.234	0.220	0.084	0.023	0.431	0.136	32.392	0.111
#2	0.109	17.270	0.221	0.084	0.022	0.429	0.134	32.418	0.111
Mean	0.109	17.252	0.220	0.084	0.023	0.430	0.135	32.405	0.111
%RSD	0.065	0.149	0.321	0.084	1.252	0.395	0.734	0.057	0.192

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	Reading	Reading	Reading	Reading	Reading	Reading	Reading	Reading	Reading
#1	0.100	0.215	0.061	28.031	15.188	44.731	19.562	0.016	0.090
#2	0.100	0.214	0.061	28.041	15.218	44.793	19.559	0.015	0.091
Mean	0.100	0.215	0.061	28.036	15.203	44.762	19.560	0.015	0.090
%RSD	0.353	0.296	0.349	0.024	0.138	0.098	0.012	1.837	0.470

	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	Reading	Reading	Reading	Reading	Reading	Reading	Reading	Reading	Reading
#1	39.438	0.205	0.090	2.489	0.740	0.010	0.236	0.465	0.317
#2	39.534	0.204	0.090	2.493	0.740	0.010	0.233	0.468	0.316
Mean	39.486	0.204	0.090	2.491	0.740	0.010	0.234	0.467	0.316
%RSD	0.172	0.381	0.236	0.114	0.000	0.718	0.935	0.440	0.268

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	Reading								
#1	0.303	0.082	0.065	1.036	0.250	0.265	0.196	0.152	0.027
#2	0.301	0.082	0.062	1.037	0.249	0.269	0.197	0.153	0.027
Mean	0.302	0.082	0.063	1.036	0.250	0.267	0.197	0.153	0.027
%RSD	0.445	0.173	2.677	0.041	0.311	1.033	0.539	0.510	0.526

	Zr	Pb	Se
	Reading	Reading	Reading
#1	0.260		
#2	0.259		
Mean	0.260	0.000	0.000
%RSD	0.218	0.000	0.000

Method : Paragon

File : 111117A

Printed : 11/18/2011 12:17:03

SampleId1 : A2

SampleId2 :

[STD]

Analysis commenced : 11/17/2011 12:42:17

Dilution ratio : 1.00000 to 1.00000 Tray :

Position : TUBE10

Raw intensities

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	Reading	Reading	Reading	Reading	Reading	Reading	Reading	Reading	Reading
#1	0.110	33.583	0.258	0.091	0.022	0.437	0.138	61.819	0.113
#2	0.110	33.592	0.257	0.090	0.021	0.436	0.137	61.797	0.114
Mean	0.110	33.588	0.257	0.090	0.021	0.436	0.138	61.808	0.114
%RSD	0.257	0.018	0.303	0.939	0.989	0.211	0.463	0.025	0.623

ted: 11/18/2011 12:17:05 User: MIKE LUNDGREEN

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	Reading	Reading	Reading	Reading	Reading	Reading	Reading	Reading	Reading
#1	0.104	0.227	0.061	52.411	30.427	95.112	38.050	0.018	0.111
#2	0.104	0.226	0.061	52.417	30.430	95.130	38.055	0.017	0.110
Mean	0.104	0.226	0.061	52.414	30.428	95.121	38.052	0.017	0.110
%RSD	0.068	0.406	0.696	0.007	0.008	0.014	0.009	0.405	0.769

	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	Reading	Reading	Reading	Reading	Reading	Reading	Reading	Reading	Reading
#1	76.958	0.210	0.097	2.955	0.885	0.011	0.295	0.559	0.388
#2	76.969	0.211	0.100	2.952	0.877	0.011	0.297	0.565	0.382
Mean	76.963	0.210	0.098	2.953	0.881	0.011	0.296	0.562	0.385
%RSD	0.010	0.303	2.016	0.077	0.658	0.000	0.406	0.743	1.140

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	Reading								
#1	0.320	0.095	0.077	1.244	0.261	0.321	0.225	0.167	0.034
#2	0.319	0.095	0.076	1.249	0.258	0.320	0.226	0.168	0.033
Mean	0.319	0.095	0.076	1.246	0.259	0.320	0.225	0.168	0.033
%RSD	0.177	0.372	1.017	0.267	0.900	0.110	0.157	0.422	0.211

	Zr	Pb	Se
	Reading	Reading	Reading
#1	0.270		
#2	0.270		
Mean	0.270	0.000	0.000
%RSD	0.026	0.000	0.000

Method : Paragon

File : 111117A

Printed : 11/18/2011 12:17:03

SampleId1 : A1

SampleId2 :

[STD]

Analysis commenced : 11/17/2011 12:44:35

Dilution ratio : 1.00000 to 1.00000 Tray :

Position : TUBE11

Raw intensities

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	Reading	Reading	Reading	Reading	Reading	Reading	Reading	Reading	Reading
#1	0.117	79.298	0.373	0.117	0.023	0.475	0.149	142.585	0.133
#2	0.118	79.360	0.367	0.117	0.023	0.475	0.153	142.671	0.133
Mean	0.117	79.329	0.370	0.117	0.023	0.475	0.151	142.628	0.133
%RSD	0.544	0.056	1.052	0.363	0.307	0.119	1.873	0.043	0.053

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	Reading	Reading	Reading	Reading	Reading	Reading	Reading	Reading	Reading
#1	0.119	0.263	0.065	113.912	71.874	251.193	91.744	0.026	0.177
#2	0.119	0.264	0.065	114.014	71.936	251.390	91.979	0.026	0.176
Mean	0.119	0.264	0.065	113.963	71.905	251.292	91.861	0.026	0.177
%RSD	0.000	0.188	0.546	0.063	0.061	0.056	0.181	0.275	0.400

	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	Reading	Reading	Reading	Reading	Reading	Reading	Reading	Reading	Reading
#1	166.589	0.235	0.122	4.424	1.339	0.014	0.497	0.858	0.599
#2	166.571	0.239	0.120	4.401	1.335	0.014	0.496	0.857	0.596
Mean	166.580	0.237	0.121	4.412	1.337	0.014	0.497	0.857	0.598
%RSD	0.008	1.044	1.341	0.357	0.238	0.503	0.199	0.058	0.320

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	Reading								
#1	0.369	0.137	0.131	1.632	0.303	0.478	0.306	0.211	0.056
#2	0.369	0.135	0.130	1.632	0.303	0.479	0.304	0.209	0.056
Mean	0.369	0.136	0.131	1.632	0.303	0.478	0.305	0.210	0.056
%RSD	0.000	0.781	0.217	0.004	0.163	0.148	0.556	0.606	0.381

	Zr	Pb	Se
	Reading	Reading	Reading
#1	0.300		
#2	0.299		
Mean	0.299	0.000	0.000
%RSD	0.378	0.000	0.000

Method : Paragon

File : 111117A

Printed : 11/18/2011 12:17:03

SampleId1 : C3

SampleId2 :

[STD]

Analysis commenced : 11/17/2011 12:46:58

Dilution ratio : 1.00000 to 1.00000 Tray :

Position : TUBE12

Raw intensities

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	Reading								
#1	0.106	0.165	0.181	0.070	0.019	0.409	0.162	0.048	0.102
#2	0.105	0.168	0.180	0.070	0.019	0.411	0.158	0.051	0.101
Mean	0.105	0.166	0.181	0.070	0.019	0.410	0.160	0.049	0.102
%RSD	0.469	1.191	0.313	0.808	0.369	0.242	2.032	3.435	0.417

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	Reading								
#1	0.096	0.184	0.058	0.050	0.716	0.106	0.108	0.011	0.066
#2	0.096	0.184	0.059	0.051	0.711	0.108	0.109	0.011	0.066
Mean	0.096	0.184	0.059	0.051	0.713	0.107	0.109	0.011	0.066
%RSD	0.074	0.115	0.845	1.815	0.505	1.583	0.912	0.000	0.536

	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	Reading								
#1	0.113	0.198	0.077	2.013	0.592	0.022	0.167	0.364	0.247
#2	0.115	0.197	0.078	2.018	0.593	0.023	0.165	0.368	0.248
Mean	0.114	0.198	0.077	2.015	0.592	0.023	0.166	0.366	0.248
%RSD	1.487	0.322	0.366	0.151	0.096	2.514	0.811	0.870	0.257

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
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	Reading								
#1	0.253	0.067	0.032	0.564	0.203	0.213	0.209	0.126	0.021
#2	0.252	0.067	0.032	0.564	0.203	0.217	0.207	0.125	0.021
Mean	0.252	0.067	0.032	0.564	0.203	0.215	0.208	0.126	0.021
%RSD	0.028	0.634	0.443	0.025	0.035	1.446	0.713	0.675	0.339

	Zr Reading	Pb Reading	Se Reading
#1	0.529		
#2	0.538		
Mean	0.534	0.000	0.000
%RSD	1.179	0.000	0.000

Method : Paragon

File : 111117A

Printed : 11/18/2011 12:17:04

SampleId1 : C2

SampleId2 :

[STD]

Analysis commenced : 11/17/2011 12:49:22

Dilution ratio : 1.00000 to 1.00000 Tray :

Position : TUBE13

Raw intensities

	Ag Reading	Al Reading	As Reading	B Reading	Ba Reading	Be Reading	Bi Reading	Ca Reading	Cd Reading
#1	0.124	0.178	0.184	0.073	0.019	0.438	0.405	0.049	0.102
#2	0.125	0.179	0.181	0.073	0.020	0.441	0.406	0.052	0.103
Mean	0.124	0.178	0.182	0.073	0.020	0.440	0.406	0.051	0.103
%RSD	0.057	0.476	1.280	0.580	1.085	0.386	0.244	3.921	0.827

	Co Reading	Cr Reading	Cu Reading	Fe Reading	K Reading	Li Reading	Mg Reading	Mn Reading	Mo Reading
#1	0.099	0.223	0.065	0.051	0.715	0.105	0.136	0.013	0.066
#2	0.099	0.224	0.065	0.052	0.715	0.106	0.138	0.013	0.067
Mean	0.099	0.224	0.065	0.051	0.715	0.105	0.137	0.013	0.067
%RSD	0.215	0.569	0.326	2.070	0.020	1.008	0.978	0.000	0.531

	Na Reading	Ni Reading	P Reading	Pb I Reading	Pb II Reading	S Reading	Sb Reading	Se I Reading	Se II Reading
#1	0.136	0.203	0.078	2.092	0.617	0.140	0.169	0.374	0.252
#2	0.138	0.203	0.079	2.092	0.618	0.141	0.170	0.374	0.248
Mean	0.137	0.203	0.078	2.092	0.617	0.140	0.169	0.374	0.250
%RSD	1.032	0.140	0.271	0.017	0.103	0.555	0.459	0.057	0.877

	Si Reading	Sn Reading	Sr Reading	Th Reading	Ti Reading	Tl Reading	U Reading	V Reading	Zn Reading
#1	0.282	0.068	0.034	0.942	0.228	0.221	0.746	0.140	0.020
#2	0.282	0.068	0.034	0.945	0.227	0.216	0.745	0.140	0.020
Mean	0.282	0.068	0.034	0.944	0.227	0.219	0.745	0.140	0.020
%RSD	0.151	0.104	0.210	0.255	0.312	1.424	0.142	0.252	1.400

	Zr Reading	Pb Reading	Se Reading
#1			
#2			
Mean			
%RSD			

#1 3.596
 #2 3.622
Mean 3.609 0.000 0.000
 %RSD 0.515 0.000 0.000

UNDRGREEN

Method : Paragon File : 111117A
 SampleId1 : C1 SampleId2 :
 Analysis commenced : 11/17/2011 12:51:43
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/18/2011 12:17:04

[STD]

Position : TUBE14

Raw intensities

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	Reading								
#1	0.306	0.307	0.199	0.122	0.021	0.690	2.890	0.108	0.121
#2	0.308	0.307	0.202	0.120	0.021	0.692	2.878	0.110	0.121
Mean	0.307	0.307	0.200	0.121	0.021	0.691	2.884	0.109	0.121
%RSD	0.345	0.092	1.060	1.114	0.664	0.276	0.292	1.752	0.117

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	Reading								
#1	0.124	0.607	0.128	0.102	0.727	0.111	0.443	0.025	0.071
#2	0.124	0.609	0.128	0.105	0.723	0.113	0.445	0.025	0.071
Mean	0.124	0.608	0.128	0.103	0.725	0.112	0.444	0.025	0.071
%RSD	0.228	0.198	0.055	2.327	0.390	1.394	0.319	0.847	0.498

	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	Reading								
#1	0.168	0.251	0.091	2.658	0.826	1.331	0.185	0.415	0.269
#2	0.171	0.252	0.092	2.656	0.826	1.335	0.186	0.412	0.274
Mean	0.170	0.251	0.092	2.657	0.826	1.333	0.186	0.413	0.271
%RSD	1.252	0.309	1.391	0.037	0.077	0.191	0.267	0.547	1.354

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	Reading								
#1	0.570	0.079	0.050	4.778	0.458	0.243	6.125	0.264	0.023
#2	0.569	0.077	0.050	4.775	0.458	0.243	6.152	0.264	0.023
Mean	0.569	0.078	0.050	4.776	0.458	0.243	6.138	0.264	0.023
%RSD	0.075	1.089	0.708	0.046	0.062	0.233	0.311	0.214	0.000

	Zr	Pb	Se
	Reading	Reading	Reading
#1	34.937		
#2	35.022		
Mean	34.979	0.000	0.000
%RSD	0.172	0.000	0.000

Method : Paragon File : 111117A
 SampleId1 : BLANK SampleId2 :
 Analysis commenced : 11/17/2011 12:59:29

Printed : 11/18/2011 12:17:04

[STD]

Dilution ratio : 1.00000 to 1.00000 Tray :

Position : TUBE1

Raw intensities

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	Reading								
#1	0.104	0.166	0.181	0.067	0.019	0.422	0.134	0.042	0.101
#2	0.104	0.165	0.182	0.067	0.019	0.423	0.133	0.041	0.101
Mean	0.104	0.166	0.182	0.067	0.019	0.422	0.133	0.041	0.101
%RSD	0.477	0.512	0.545	0.106	0.737	0.050	0.690	0.171	0.491
	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	Reading								
#1	0.096	0.180	0.058	0.044	0.701	0.100	0.102	0.011	0.066
#2	0.096	0.181	0.058	0.044	0.706	0.101	0.102	0.011	0.066
Mean	0.096	0.180	0.058	0.044	0.704	0.101	0.102	0.011	0.066
%RSD	0.442	0.196	0.122	0.162	0.533	0.211	0.486	0.646	0.430
	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	Reading								
#1	0.110	0.195	0.080	2.016	0.598	0.009	0.169	0.375	0.248
#2	0.110	0.197	0.078	2.018	0.593	0.009	0.169	0.370	0.248
Mean	0.110	0.196	0.079	2.017	0.595	0.009	0.169	0.372	0.248
%RSD	0.064	0.722	1.979	0.081	0.499	0.773	0.126	0.931	0.029
	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	Reading								
#1	0.253	0.067	0.031	0.527	0.198	0.214	0.148	0.125	0.019
#2	0.251	0.068	0.031	0.528	0.199	0.219	0.147	0.127	0.020
Mean	0.252	0.068	0.031	0.528	0.198	0.216	0.147	0.126	0.020
%RSD	0.421	0.628	0.452	0.214	0.428	1.503	0.240	0.899	1.443
	Zr	Pb	Se						
	Reading	Reading	Reading						
#1	0.251								
#2	0.251								
Mean	0.251	0.000	0.000						
%RSD	0.113	0.000	0.000						

Line calibration information

Analyte	Reporting name	C0	C1	C2	C3	Correlation coefficient	Low limit	High limit	Date of last regression
Ag 328.068	Ag	0.0000308	0.8210848	-0.0000108	0	1.0000	-0.001	3.220	11/17/2011 13:42:53
Al 308.215	Al	-0.2533873	5.8483873	0.0099993	0	1.0000	0.048	78.248	11/17/2011 13:42:54
As 189.042/2	As	0.0087504	1.2488252	-0.0033598	0	1.0000	-0.008	4.047	11/17/2011 13:42:55
B 248.878/2	B	-0.0099218	0.9005768	-0.0004801	0	1.0000	0.002	11.179	11/17/2011 13:42:55
Ba 493.409	Ba	-0.0012515	0.522595	0.0009098	0	1.0000	0.000	18.539	11/17/2011 13:42:56
Be 313.042	Be	-0.0078341	0.0178508	-0.0000007	0	1.0000	0.422	57.215	11/17/2011 13:42:57
Bi 223.061	Bi	-0.0004821	2.1589012	-0.0112097	0	1.0000	0.000	2.344	11/17/2011 13:42:58
Ca 317.933	Ca	-0.0810279	3.0190289	0.005098	0	0.99879	0.006	138.431	11/17/2011 13:42:59
Cd 228.502/2	Cd	-0.0011984	0.2105753	0.0001956	0	1.0000	0.002	23.248	11/17/2011 13:43:00
Co 228.616	Co	0.0001226	0.7413046	-0.0002441	0	1.0000	-0.002	6.760	11/17/2011 13:43:01
Cr 267.716	Cr	-0.0014857	0.3280832	0.0000007	0	1.0000	0.001	30.372	11/17/2011 13:43:01
Cu 324.753	Cu	-0.0135855	1.2312181	-0.0013868	0	1.0000	0.010	8.208	11/17/2011 13:43:04
Fe 259.94	Fe	-0.0182197	1.3262566	0.0042327	0	1.0000	0.003	111.851	11/17/2011 13:43:04
K 768.491	K	-2.7903198	3.5177162	-0.0000323	0	0.99997	0.704	71.505	11/17/2011 13:43:04
Li 670.784	Li	-0.0080455	0.0489805	-0.0000309	0	1.0000	0.101	251.292	11/17/2011 13:43:05
Mg 279.078	Mg	-0.0818581	5.2790893	0.0042234	0	0.99964	0.001	88.897	11/17/2011 13:43:05
Mn 257.61	Mn	-0.0012138	0.9788914	0.0032828	0	1.0000	0.000	9.510	11/17/2011 13:43:05
Mo 202.03/2	Mo	-0.0034597	0.8982992	0.0006555	0	1.0000	0.002	11.047	11/17/2011 13:43:05
Na 588.996	Na	0.0455927	0.8957898	0.0012223	0	0.99993	0.110	188.580	11/17/2011 13:43:05
Ni 231.ED4	Ni	-0.0033569	0.3682788	-0.0000783	0	1.0000	0.004	27.328	11/17/2011 13:43:05
P 178.287/2	P	-0.0130201	2.8873075	0.0091234	0	1.0000	0.001	17.584	11/17/2011 13:43:05
Pb 220.351	Pb I	0.0007639	0.2404483	-0.0000068	0	1.0000	-0.009	41.635	11/17/2011 13:43:05
Pb 220.352/2	Pb II	-0.0041301	0.4575773	0.0000288	0	1.0000	0.007	21.832	11/17/2011 13:43:05
S 182.04/2	S	-0.0720218	38.8735098	-0.352863	0	1.0000	0.001	1.304	11/17/2011 13:43:06
Sb 206.838/2	Sb	-0.0031899	1.4549444	0.000574	0	1.0000	0.001	1.378	11/17/2011 13:43:06
Se 196.021	Se I	-0.0043865	1.5561178	-0.0106452	0	1.0000	-0.001	3.290	11/17/2011 13:43:06
Se 196.021/2	Se II	-0.000787	1.0016968	0.0030322	0	1.0000	0.000	4.519	11/17/2011 13:43:06
Si 288.158	Si	-0.1334825	1.45968	0.0010488	0	1.0000	0.079	33.539	11/17/2011 13:43:06
Sn 189.989	Sn	-0.0009072	4.4424017	-0.0140064	0	1.0000	-0.001	2.267	11/17/2011 13:43:06
Sr 421.552	Sr	-0.0035822	0.1404717	0.0001148	0	1.0000	0.000	87.498	11/17/2011 13:43:06

Method report Paragon

Page

Th 263.7312	Th	-0.0617728	1.2600022	-0.0505107	0	0.99994	0.043	1.761	11/17/2011 13:43:06
Ti 334.941	Ti	-0.0018121	0.110512	-0.0000027	0	1.0000	-0.008	90.701	11/17/2011 13:43:06
Tl 190.8642	Tl	0.0107469	1.2198544	-0.0027112	0	1.0000	-0.008	4.129	11/17/2011 13:43:06
U 385.958	U	-0.0279926	8.8748598	-0.017169	0	1.0000	0.000	5.700	11/17/2011 13:43:07
V 292.402	V	-0.0009038	0.4554574	-0.0001285	0	1.0000	0.001	11.014	11/17/2011 13:43:07
Zn 206.2	Zn	-0.0031058	3.0381285	0.0058485	0	1.0000	0.000	3.275	11/17/2011 13:43:07
Zr 339.198	Zr	-0.0006857	0.1546433	-0.0001832	0	1.0000	0.013	33.478	11/17/2011 13:43:07

Method : Paragon File : 111117A
 SampleId1 : MIXBHIGH SampleId2 :
 Analysis commenced : 11/17/2011 14:07:30
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/18/2011 12:18:39
 [CV]
 Position : TUBE6

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	2.00839	-0.04831	4.79891	9.58536	9.73159	0.97047	0.00018	-0.05808	4.90376
#2	2.00091	-0.04253	4.81264	9.59338	9.71741	0.96828	0.00308	-0.05778	4.89584
Mean	2.00465	-0.04542	4.80578	9.58937	9.72450	0.96938	0.00163	-0.05793	4.89980
%RSD	0.26366	8.99860	0.20206	0.05909	0.10314	0.15990	125.95745	0.36851	0.11428

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	4.82245	9.68336	9.78314	-0.02100	-0.27552	-0.00284	-0.09227	9.54671	9.68258
#2	4.81103	9.67129	9.75409	-0.02114	-0.27446	-0.00284	-0.08858	9.53155	9.67017
Mean	4.81674	9.67732	9.76862	-0.02107	-0.27499	-0.00284	-0.09043	9.53913	9.67638
%RSD	0.16767	0.08823	0.21035	0.44506	0.27136	0.11703	2.88962	0.11241	0.09065

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	0.17588	9.64789	47.79317	9.44750	9.67646	-0.01371	1.96893	4.79272	4.93720
#2	0.17540	9.66407	47.78808	9.42692	9.62450	-0.00594	1.95484	4.80397	4.92154
Mean	0.17564	9.65598	47.79062	9.43721	9.65048	-0.00982	1.96188	4.79834	4.92937
%RSD	0.19621	0.11849	0.00753	0.15420	0.38067	55.95363	0.50773	0.16568	0.22454

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	48.77519	9.56414	9.73218	1.95019	9.74381	4.76419	-0.08034	4.81649	9.63300
#2	48.69755	9.54431	9.72388	1.94825	9.72133	4.78292	-0.08922	4.80534	9.61795
Mean	48.73637	9.55423	9.72803	1.94922	9.73257	4.77355	-0.08478	4.81092	9.62547
%RSD	0.11265	0.14678	0.06034	0.07018	0.16334	0.27746	7.40235	0.16395	0.11057

	Zr ppm	Pb calc	Se calc
#1	-0.07832	9.60021	4.88909
#2	-0.07860	9.55871	4.88239
Mean	-0.07846	9.57946	4.88574
%RSD	0.25159	0.30637	0.09692

Method : Paragon File : 111117A
 SampleId1 : MIXAHIGH SampleId2 :
 Analysis commenced : 11/17/2011 14:12:02
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/18/2011 12:18:39
 [CV]
 Position : TUBE11

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	0.00178	497.20641	0.00651	0.01250	0.00092	0.00099	0.00774	490.12687	-0.00009
#2	-0.00001	497.76197	0.00547	0.01288	0.00152	0.00110	0.00623	492.52248	0.00019
Mean	0.00089	497.48419	0.00599	0.01269	0.00122	0.00105	0.00698	491.32468	0.00005
%RSD	143.14520	0.07897	12.24499	2.07393	34.67113	7.98018	15.33643	0.34477	414.97037

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.00142	0.00258	-0.00628	195.01955	246.61591	9.73765	494.46464	-0.00991	0.00033
#2	0.00089	0.00316	-0.00601	195.95931	246.69180	9.73492	495.93343	-0.00932	0.00147
Mean	0.00115	0.00287	-0.00614	195.48943	246.65386	9.73628	495.19904	-0.00961	0.00090
%RSD	32.67184	14.28584	3.13655	0.33992	0.02175	0.01981	0.20973	4.31048	89.16144

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	148.85266	0.00160	0.00042	0.00234	-0.00595	0.00184	0.01588	-0.01565	0.00307
#2	148.64542	0.00188	0.01520	-0.00014	-0.00436	-0.00205	0.00853	-0.02180	0.00020
Mean	148.74904	0.00174	0.00781	0.00110	-0.00515	-0.00011	0.01220	-0.01872	0.00164
%RSD	0.09851	11.56450	133.87407	159.09995	21.86570	2573.22774	42.59998	23.22580	124.08354

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	-0.00799	0.00321	0.00864	-0.03948	-0.00056	0.00315	0.12852	-0.00681	-0.00553
#2	-0.00621	0.00046	0.00934	-0.03922	-0.00026	0.01039	0.11280	-0.00747	-0.00523
Mean	-0.00710	0.00184	0.00899	-0.03935	-0.00041	0.00677	0.12066	-0.00714	-0.00538
%RSD	17.72596	105.63217	5.52838	0.46476	51.08591	75.61935	9.21567	6.49162	3.98832

	Zr ppm	Pb calc	Se calc
#1	0.00773	-0.00319	-0.00316
#2	0.00756	-0.00295	-0.00713
Mean	0.00764	-0.00307	-0.00514
%RSD	1.58874	5.50338	54.51591

Method : Paragon

File : 111117A

Printed : 11/18/2011 12:18:39

SampleId1 : MIXCHIGH

SampleId2 :

[CV]

Analysis commenced : 11/17/2011 14:13:56

Dilution ratio : 1.00000 to 1.00000 Tray :

Position : TUBE14

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00329	0.19748	-0.00516	0.02032	-0.00017	0.00476	4.86961	-0.00042	-0.00137
#2	-0.00324	0.20697	-0.00386	0.02023	-0.00027	0.00481	4.89156	-0.00404	-0.00057
Mean	-0.00326	0.20223	-0.00451	0.02027	-0.00022	0.00478	4.88058	-0.00223	-0.00097
%RSD	1.09255	3.32054	20.31745	0.32454	34.78342	0.69787	0.31803	114.99867	57.90405

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
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	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	0.00589	-0.00526	-0.00277	0.00101	-0.24808	-0.00249	-0.38155	0.00465	0.00043
#2	0.00551	-0.00466	-0.00230	-0.00031	-0.25371	-0.00256	-0.36941	0.00484	0.00024
Mean	0.00570	-0.00496	-0.00254	0.00035	-0.25090	-0.00253	-0.37548	0.00475	0.00033
%RSD	4.72907	8.58954	13.04351	268.95031	1.58623	2.10410	2.28634	2.91133	40.21349

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	0.17776	-0.00060	0.01600	-0.01357	0.01178	50.01899	0.00219	-0.01037	0.00502
#2	0.17547	0.00119	0.01574	-0.00965	0.01103	50.20874	0.00234	-0.00889	0.00318
Mean	0.17661	0.00030	0.01587	-0.01161	0.01140	50.11387	0.00226	-0.00963	0.00410
%RSD	0.91987	426.13325	1.19749	23.88537	4.63464	0.26775	4.64409	10.89097	31.70953

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	-0.03908	0.02286	-0.00032	-0.44493	0.00763	0.00226	49.55386	-0.00882	-0.00037
#2	-0.03757	0.01920	-0.00042	-0.44448	0.00787	-0.00113	49.62158	-0.00910	-0.00007
Mean	-0.03832	0.02103	-0.00037	-0.44471	0.00775	0.00056	49.58772	-0.00896	-0.00022
%RSD	2.77257	12.29931	19.94269	0.07214	2.21876	424.68653	0.09655	2.20703	96.94749

	Zr ppm	Pb calc	Se calc
#1	4.93439	0.00334	-0.00010
#2	4.94361	0.00414	-0.00084
Mean	4.93900	0.00374	-0.00047
%RSD	0.13205	15.25672	110.68906

Method : Paragon File : 111117A
SampleId1 : ICV SampleId2 :
Analysis commenced : 11/17/2011 14:28:02
Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/18/2011 12:18:40
[CV]

Position : STD1

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	0.10215	25.60587	0.24857	0.50505	0.49729	0.24141	0.25277	24.96863	0.25967
#2	0.10233	25.58021	0.25245	0.50199	0.49829	0.24151	0.25170	24.94474	0.25934
Mean	0.10224	25.59304	0.25051	0.50352	0.49779	0.24146	0.25224	24.95668	0.25951
%RSD	0.12858	0.07090	1.09772	0.42975	0.14151	0.03072	0.30043	0.06768	0.09044

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.25060	0.50108	0.49225	10.19681	24.73899	0.24907	25.29708	0.49638	0.50006
#2	0.25029	0.50111	0.49248	10.20098	24.68976	0.24885	25.31570	0.49609	0.49546
Mean	0.25044	0.50109	0.49237	10.19890	24.71438	0.24896	25.30639	0.49623	0.49776
%RSD	0.08633	0.00361	0.03279	0.02891	0.14087	0.06188	0.05202	0.04190	0.65277

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
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#1	23.78542	0.47823	2.45783	0.49507	0.49612	2.59692	0.25583	0.50286	0.49443
#2	23.72016	0.47747	2.45377	0.48863	0.49839	2.56586	0.25517	0.49636	0.50598
Mean	23.75279	0.47785	2.45580	0.49185	0.49726	2.58139	0.25550	0.49961	0.50021
%RSD	0.19427	0.11376	0.11679	0.92671	0.32270	0.85082	0.18415	0.91926	1.63343

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm								
#1	2.49395	0.49806	0.26148	0.15403	0.24341	0.24360	2.44868	0.24815	0.48008
#2	2.48966	0.49208	0.26175	0.15410	0.24469	0.24720	2.46375	0.24955	0.48555
Mean	2.49181	0.49507	0.26162	0.15407	0.24405	0.24540	2.45621	0.24885	0.48282
%RSD	0.12164	0.85387	0.07292	0.03114	0.37138	1.03773	0.43379	0.39690	0.80085

	Zr	Pb	Se
	ppm	calc	calc
#1	0.49646	0.49577	0.49723
#2	0.49749	0.49514	0.50278
Mean	0.49698	0.49546	0.50001
%RSD	0.14608	0.09032	0.78406

Method : Paragon File : 111117A
SampleId1 : ZZZ SampleId2 :
Analysis commenced : 11/17/2011 14:29:58
Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/18/2011 12:18:40
[CB]

Position : STD2

Final concentrations

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00094	-0.01713	0.00026	0.00096	-0.00120	-0.00027	-0.00893	-0.06563	-0.00105
#2	-0.00028	-0.01847	0.00342	0.00204	-0.00104	-0.00025	-0.00201	-0.06382	-0.00107
Mean	-0.00061	-0.01780	0.00184	0.00150	-0.00112	-0.00026	-0.00547	-0.06472	-0.00106
%RSD	75.96106	5.32570	121.42237	50.85295	9.89026	4.85727	89.42708	1.97897	1.45009

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm								
#1	-0.00102	-0.00180	-0.00251	-0.01331	-0.26210	-0.00281	-0.05849	-0.00102	-0.00153
#2	-0.00086	-0.00184	-0.00204	-0.01172	-0.24897	-0.00277	-0.05374	-0.00082	-0.00245
Mean	-0.00094	-0.00182	-0.00228	-0.01252	-0.25554	-0.00279	-0.05611	-0.00092	-0.00199
%RSD	11.39748	1.58190	14.60230	8.99115	3.63372	0.77521	5.98719	15.00798	32.62295

	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	0.12175	-0.00189	-0.01598	-0.00193	0.00245	-0.02926	-0.00209	-0.00956	0.00414
#2	0.12212	-0.00263	-0.01436	-0.00270	0.00028	-0.02926	0.00056	-0.00426	0.00464
Mean	0.12194	-0.00226	-0.01517	-0.00231	0.00137	-0.02926	-0.00076	-0.00691	0.00439
%RSD	0.21631	22.90967	7.51566	23.53410	111.95102	0.00000	246.09447	54.22255	8.06983

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.02234	-0.00219	-0.00343	-0.00916	-0.00247	0.00550	-0.04218	-0.00105	-0.00341

#2	-0.02090	-0.00774	-0.00335	-0.00426	-0.00202	0.00388	-0.02887	-0.00072	-0.00250
Mean	-0.02162	-0.00496	-0.00339	-0.00671	-0.00225	0.00469	-0.03553	-0.00088	-0.00295
%RSD	4.69552	79.13431	1.55871	51.68832	14.25534	24.34937	26.49334	26.12432	21.80322

	Zr ppm	Pb calc	Se calc
#1	0.00053	0.00099	-0.00042
#2	0.00026	-0.00071	0.00168
Mean	0.00040	0.00014	0.00063
%RSD	47.81163	854.36208	237.23905

Method : Paragon

File : 111117A

Printed : 11/18/2011 12:18:40

SampleId1 : ICB

SampleId2 :

[CB]

Analysis commenced : 11/17/2011 14:32:23

Dilution ratio : 1.00000 to 1.00000 Tray :

Position : STD2

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00008	-0.01126	0.00184	0.00042	-0.00104	-0.00024	-0.00093	-0.06684	0.00003
#2	-0.00095	-0.00779	-0.00315	0.00060	-0.00115	-0.00028	-0.00417	-0.06684	-0.00024
Mean	-0.00051	-0.00953	-0.00065	0.00051	-0.00109	-0.00026	-0.00255	-0.06684	-0.00010
%RSD	119.78229	25.73117	540.99016	24.87226	6.75088	9.73725	89.67705	0.00000	182.28646

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00102	-0.00110	-0.00240	-0.01398	-0.22198	-0.00272	-0.05479	-0.00092	-0.00475
#2	-0.00102	-0.00079	-0.00264	-0.01398	-0.22854	-0.00273	-0.05532	-0.00102	-0.00126
Mean	-0.00102	-0.00095	-0.00252	-0.01398	-0.22526	-0.00273	-0.05506	-0.00097	-0.00300
%RSD	0.01181	22.54896	6.78914	0.00000	2.06105	0.39666	0.67800	7.12588	82.23391

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	0.12033	-0.00310	-0.00872	-0.00131	-0.00177	-0.01760	-0.00275	-0.00676	-0.00107
#2	0.12011	-0.00233	-0.01651	-0.00578	-0.00328	-0.02537	0.00244	-0.00925	0.00053
Mean	0.12022	-0.00272	-0.01262	-0.00354	-0.00252	-0.02149	-0.00015	-0.00800	-0.00027
%RSD	0.13164	20.00438	43.67617	89.10996	42.28443	25.58527	2384.32989	21.98648	422.16224

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	-0.02134	0.00209	-0.00341	-0.00767	-0.00240	0.00075	-0.03686	-0.00095	-0.00159
#2	-0.02278	-0.00347	-0.00344	-0.00906	-0.00239	0.00028	-0.03508	-0.00133	-0.00189
Mean	-0.02206	-0.00069	-0.00343	-0.00836	-0.00239	0.00051	-0.03597	-0.00114	-0.00174
%RSD	4.64243	568.50646	0.61669	11.71702	0.32680	63.52876	3.48925	23.11666	12.34177

	Zr ppm	Pb calc	Se calc
#1	0.00031	-0.00162	-0.00296
#2	0.00012	-0.00411	-0.00272

Mean 0.00021 -0.00286 -0.00284UNDGREEN
 %RSD 62.59187 61.58868 5.97566

Method : Paragon File : 111117A
 SampleId1 : CRI SampleId2 :
 Analysis commenced : 11/17/2011 14:35:43
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/18/2011 12:18:41
 [FLEXQC]

Position : STD3

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	0.02041	0.43529	0.01316	0.40793	0.40892	0.01153	0.05005	5.18143	0.01190
#2	0.02120	0.44537	0.01364	0.40973	0.40949	0.01156	0.04660	5.19176	0.01294
Mean	0.02081	0.44033	0.01340	0.40883	0.40921	0.01154	0.04833	5.18660	0.01242
%RSD	2.67499	1.62008	2.56792	0.31138	0.09961	0.20586	5.04871	0.14076	5.92804

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.10236	0.02057	0.04932	0.20020	3.87468	0.01577	5.18041	0.03132	0.01766
#2	0.10297	0.02093	0.04967	0.20086	3.87578	0.01574	5.16772	0.03142	0.01941
Mean	0.10267	0.02075	0.04950	0.20053	3.87523	0.01575	5.17407	0.03137	0.01853
%RSD	0.42024	1.23424	0.49899	0.23408	0.01997	0.11435	0.17342	0.22025	6.65687

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	4.29062	0.07725	0.18723	0.00556	0.00729	0.19230	0.13024	-0.00256	0.01059
#2	4.29199	0.08033	0.18562	0.00751	0.00613	0.20785	0.12634	0.00990	0.01079
Mean	4.29130	0.07879	0.18643	0.00654	0.00671	0.20008	0.12829	0.00367	0.01069
%RSD	0.02253	2.76089	0.61187	21.08836	12.16510	5.49477	2.15048	240.15056	1.32468

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	0.09826	0.09605	0.01949	0.00226	0.01930	0.02155	0.18220	0.10367	0.04730
#2	0.09869	0.10032	0.01959	-0.00223	0.01913	0.02144	0.19639	0.10432	0.04790
Mean	0.09848	0.09818	0.01954	0.00001	0.01921	0.02150	0.18929	0.10400	0.04760
%RSD	0.30432	3.07664	0.37870	21414.14806	0.61005	0.35482	5.30363	0.44311	0.90212

	Zr ppm	Pb calc	Se calc
#1	0.05158	0.00671	0.00621
#2	0.05278	0.00659	0.01049
Mean	0.05218	0.00665	0.00835
%RSD	1.62502	1.28683	36.25685

Method : Paragon File : 111117A
 SampleId1 : ICESA SampleId2 :
 Analysis commenced : 11/17/2011 14:37:38
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/18/2011 12:18:41
 [FLEXQC]

Position : STD4

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00008	264.25569	0.00233	-0.00156	-0.00078	0.00052	0.00599	262.03118	0.00083
#2	-0.00103	265.09637	0.00330	-0.00147	-0.00057	0.00054	0.00621	262.65223	0.00098
Mean	-0.00055	264.67603	0.00282	-0.00151	-0.00068	0.00053	0.00610	262.34171	0.00090
%RSD	120.62980	0.22459	24.44484	4.20544	21.84362	2.87423	2.58018	0.16740	11.38118

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.00073	-0.00123	-0.00605	107.56870	-0.32010	-0.00253	266.90558	0.00269	-0.00658
#2	0.00028	-0.00185	-0.00534	107.84771	-0.31463	-0.00249	267.55319	0.00269	-0.00273
Mean	0.00050	-0.00154	-0.00570	107.70821	-0.31736	-0.00251	267.22938	0.00269	-0.00465
%RSD	64.14742	28.18913	8.79537	0.18317	1.21909	1.29140	0.17136	0.00000	58.60550

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	0.13354	0.00067	0.00364	-0.00423	-0.00007	0.03293	-0.00136	-0.02200	0.00289
#2	0.13615	-0.00065	-0.00012	-0.00417	-0.00373	0.03293	-0.00711	-0.01829	0.00715
Mean	0.13484	0.00001	0.00176	-0.00420	-0.00190	0.03293	-0.00423	-0.02015	0.00502
%RSD	1.36932	9431.05385	151.12875	1.11658	136.22125	0.00000	96.12404	13.03842	60.04611

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	-0.02553	-0.00219	-0.00189	-0.06077	-0.00084	0.01191	0.02833	-0.00538	-0.00219
#2	-0.02101	-0.00133	-0.00181	-0.05587	-0.00058	0.00160	0.04412	-0.00528	-0.00250
Mean	-0.02327	-0.00176	-0.00185	-0.05832	-0.00071	0.00675	0.03623	-0.00533	-0.00235
%RSD	13.72473	34.30125	2.85536	5.94039	25.26476	107.96832	30.80970	1.33567	9.14830

	Zr ppm	Pb calc	Se calc
#1	0.00654	-0.00146	-0.00540
#2	0.00627	-0.00387	-0.00132
Mean	0.00640	-0.00266	-0.00336
%RSD	2.95349	64.12999	85.86752

Method : Paragon File : 111117A
 SampleId1 : ICSAB SampleId2 :
 Analysis commenced : 11/17/2011 14:44:12
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/18/2011 12:18:41
 [FLEXQC]

Position : STD5

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	0.20260	213.98344	0.10682	1.01451	0.50951	0.47806	0.52868	266.88128	1.03482
#2	0.20366	213.44323	0.09441	1.01577	0.50920	0.47774	0.53837	266.40979	1.03854
Mean	0.20313	213.71334	0.10061	1.01514	0.50935	0.47790	0.53352	266.64554	1.03668
%RSD	0.37059	0.17874	8.71780	0.08772	0.04368	0.04682	1.28502	0.12503	0.25425

ted: 11/18/2011 12:19:02 User: MIKE LUNDGREEN

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.48399	0.48008	0.51826	109.74502	-0.34089	1.14635	270.87316	0.49011	1.00084
#2	0.48360	0.47964	0.51766	109.62769	-0.34235	1.14302	270.39870	0.49050	0.99753
Mean	0.48379	0.47986	0.51796	109.68636	-0.34162	1.14469	270.63593	0.49030	0.99918
%RSD	0.05562	0.06522	0.08304	0.07564	0.30201	0.20574	0.12396	0.05654	0.23432

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	0.13548	0.95176	0.98523	0.04111	0.05191	1.09775	0.56458	0.01758	0.05968
#2	0.13622	0.94854	0.99304	0.04320	0.04898	1.10941	0.56132	0.03207	0.05945
Mean	0.13585	0.95015	0.98913	0.04215	0.05044	1.10358	0.56295	0.02483	0.05957
%RSD	0.38833	0.23961	0.55852	3.49087	4.11610	0.74682	0.40906	41.26792	0.26628

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	0.96289	1.00506	1.06401	-0.00367	0.95348	0.10970	10.05504	0.48812	0.91462
#2	0.95804	0.99696	1.06244	0.00138	0.95330	0.10455	10.06572	0.48926	0.91493
Mean	0.96046	1.00101	1.06322	-0.00114	0.95339	0.10712	10.06038	0.48869	0.91478
%RSD	0.35718	0.57252	0.10451	312.38691	0.01311	3.39611	0.07508	0.16499	0.02350

	Zr ppm	Pb calc	Se calc
#1	0.49542	0.04832	0.04566
#2	0.49463	0.04705	0.05034
Mean	0.49502	0.04768	0.04800
%RSD	0.11411	1.87670	6.88809

Method : Paragon File : 111117A
 SampleId1 : CCV SampleId2 :
 Analysis commenced : 11/17/2011 14:46:06
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/18/2011 12:18:42
 [CV]

Position : STD6

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	0.21889	51.74161	0.52026	1.03151	1.01443	0.49473	0.53212	51.49519	0.53476
#2	0.21419	51.38172	0.50169	1.01316	1.01006	0.48781	0.51829	50.67802	0.52651
Mean	0.21654	51.56166	0.51098	1.02234	1.01224	0.49127	0.52520	51.08660	0.53063
%RSD	1.53335	0.49355	2.57006	1.26921	0.30504	0.99493	1.86171	1.13107	1.09838

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.51008	1.02533	1.01351	20.92377	52.04291	0.54892	51.44211	1.00274	1.02843
#2	0.50027	1.01028	1.00441	20.67529	51.84781	0.54716	50.84121	0.99104	1.00985
Mean	0.50518	1.01780	1.00896	20.79953	51.94536	0.54804	51.14166	0.99689	1.01914
%RSD	1.37333	1.04552	0.63760	0.84472	0.26558	0.22715	0.83083	0.83019	1.28906

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	49.11603	0.99932	5.01612	1.01615	1.00780	5.25866	0.49352	1.06302	1.02405
#2	48.86665	0.97177	5.01993	0.98927	1.01611	5.20049	0.46780	1.02419	1.02682
Mean	48.99134	0.98555	5.01802	1.00271	1.01195	5.22958	0.48066	1.04360	1.02543
%RSD	0.35994	1.97655	0.05368	1.89525	0.58035	0.78648	3.78439	2.63143	0.19115

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	5.06128	1.02906	0.53542	0.35645	0.49562	0.52106	4.95241	0.50640	0.99548
#2	4.99947	1.00518	0.53228	0.32889	0.49024	0.49618	4.93486	0.49877	0.97055
Mean	5.03038	1.01712	0.53385	0.34267	0.49293	0.50862	4.94364	0.50258	0.98302
%RSD	0.86881	1.66028	0.41606	5.68598	0.77188	3.45895	0.25091	1.07360	1.79301

	Zr ppm	Pb calc	Se calc
#1	1.00073	1.01058	1.03703
#2	0.99161	1.00717	1.02594
Mean	0.99617	1.00888	1.03148
%RSD	0.64692	0.23899	0.75981

Method : Paragon

File : 111117A

Printed : 11/18/2011 12:18:42

SampleId1 : CCB

SampleId2 :

[CB]

Analysis commenced : 11/17/2011 14:48:11

Dilution ratio : 1.00000 to 1.00000 Tray :

Position : STD2

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00082	0.05504	0.00172	-0.00057	-0.00078	0.00023	-0.00719	-0.00434	0.00094
#2	-0.00089	0.09684	-0.00193	0.00150	-0.00042	0.00033	0.00166	0.04155	0.00110
Mean	-0.00085	0.07594	-0.00010	0.00047	-0.00060	0.00028	-0.00277	0.01861	0.00102
%RSD	5.98566	38.92716	2469.80728	313.60908	43.23483	26.71344	226.35123	174.41932	10.75458

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00117	-0.00127	-0.00168	0.00937	-0.19681	-0.00256	0.00433	-0.00053	-0.00346
#2	-0.00071	-0.00080	-0.00204	0.02754	-0.19535	-0.00241	0.04868	-0.00033	-0.00263
Mean	-0.00094	-0.00103	-0.00186	0.01845	-0.19608	-0.00248	0.02651	-0.00043	-0.00305
%RSD	34.35943	32.03225	13.85662	69.63092	0.52617	4.21246	118.30191	31.97370	19.18290

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	0.13361	-0.00307	-0.01598	-0.00315	0.00473	-0.02537	-0.00433	-0.00536	0.00314
#2	0.13928	-0.00274	-0.01195	-0.00119	0.00042	-0.02537	-0.00320	-0.00333	0.00104
Mean	0.13645	-0.00290	-0.01396	-0.00217	0.00257	-0.02537	-0.00377	-0.00435	0.00209
%RSD	2.93844	8.03227	20.41674	64.05487	118.18385	0.00000	21.13836	32.95180	70.97918

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
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	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.01491	-0.00731	-0.00310	-0.00695	-0.00201	0.00551	-0.03332	-0.00081	-0.00189
#2	-0.01638	-0.00219	-0.00283	-0.00900	-0.00178	0.00123	-0.02801	-0.00039	-0.00189
Mean	-0.01565	-0.00475	-0.00296	-0.00797	-0.00189	0.00337	-0.03067	-0.00060	-0.00189
%RSD	6.61976	76.31446	6.41778	18.15733	8.66492	89.74132	12.24921	49.99633	0.00000

	Zr ppm	Pb calc	Se calc
#1	0.00084	0.00210	0.00031
#2	0.00129	-0.00011	-0.00041
Mean	0.00106	0.00099	-0.00005
%RSD	30.34394	157.46784	993.48231

Method : Paragon

File : 111117A

Printed : 11/18/2011 12:18:42

SampleId1 : F111115-1MB

SampleId2 :

[SAMPLE]

Analysis commenced : 11/17/2011 14:50:06

Dilution ratio : 1.00000 to 1.00000 Tray :

Position : TUBE1

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00168	0.03912	0.00196	-0.00147	-0.00099	0.00003	-0.00050	-0.04118	0.00049
#2	-0.00100	0.05090	0.00111	-0.00102	-0.00094	0.00010	-0.00699	-0.02789	0.00023
Mean	-0.00134	0.04501	0.00154	-0.00124	-0.00096	0.00007	-0.00374	-0.03453	0.00036
%RSD	36.21698	18.50086	39.15567	25.59369	3.83286	68.54267	122.49432	27.20100	50.31042

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00155	-0.00160	-0.00228	-0.00668	-0.20447	-0.00291	-0.03896	-0.00092	-0.00318
#2	-0.00155	-0.00162	-0.00202	-0.00111	-0.21614	-0.00290	-0.02998	-0.00092	-0.00346
Mean	-0.00155	-0.00161	-0.00215	-0.00390	-0.21030	-0.00290	-0.03447	-0.00092	-0.00332
%RSD	0.01503	0.83016	8.60841	101.11498	3.92466	0.24842	18.41076	0.00000	5.86402

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	0.14062	-0.00281	-0.01813	-0.00654	0.00170	-0.02537	-0.00404	-0.01329	0.00063
#2	0.14256	-0.00054	-0.01114	-0.00291	0.00155	-0.01760	-0.00306	-0.00631	0.00534
Mean	0.14159	-0.00167	-0.01463	-0.00472	0.00162	-0.02149	-0.00355	-0.00980	0.00299
%RSD	0.96873	95.86829	33.76415	54.29170	6.85387	25.58527	19.53182	50.35586	111.40397

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	-0.01710	0.00080	-0.00346	-0.01159	-0.00243	-0.00342	-0.03154	-0.00207	0.00206
#2	-0.01765	-0.00560	-0.00337	-0.00939	-0.00255	-0.00297	-0.05905	-0.00123	0.00327
Mean	-0.01738	-0.00240	-0.00341	-0.01049	-0.00249	-0.00320	-0.04530	-0.00165	0.00266
%RSD	2.21143	188.83748	1.85817	14.82431	3.45126	9.94479	42.95477	35.97154	32.24890

	Zr ppm	Pb calc	Se calc
#1	0.00084	0.00210	0.00031
#2	0.00129	-0.00011	-0.00041
Mean	0.00106	0.00099	-0.00005
%RSD	30.34394	157.46784	993.48231

#1	0.00014	-0.00104	-0.00400	UNDRGREEN
#2	0.00020	0.00006	0.00146	
Mean	0.00017	-0.00049	-0.00127	
%RSD	25.13597	159.25596	304.31417	

Method : Paragon File : 111117A Printed : 11/18/2011 12:18:42
 SampleId1 : F111115-1RVS SampleId2 : [SAMPLE]
 Analysis commenced : 11/17/2011 14:52:13
 Dilution ratio : 1.00000 to 1.00000 Tray : Position : TUBE2

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	0.01055	1.03702	0.04600	0.04842	0.04704	0.00961	0.09831	4.89238	0.02112
#2	0.00981	1.04014	0.05537	0.04860	0.04720	0.00960	0.10544	4.88661	0.02179
Mean	0.01018	1.03858	0.05069	0.04851	0.04712	0.00961	0.10188	4.88950	0.02146
%RSD	5.17230	0.21224	13.06664	0.26252	0.23533	0.03589	4.94601	0.08341	2.22701

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.01867	0.04798	0.04575	0.99405	8.56253	0.03863	4.90231	0.04744	0.09508
#2	0.01920	0.04784	0.04563	0.99538	8.51110	0.03846	4.91024	0.04783	0.09297
Mean	0.01894	0.04791	0.04569	0.99471	8.53681	0.03854	4.90627	0.04764	0.09403
%RSD	1.99201	0.20539	0.19655	0.09474	0.42600	0.30830	0.11430	0.58019	1.58862

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	8.30690	0.04781	0.95559	0.04887	0.05011	0.98508	0.08662	0.05357	0.05373
#2	8.25717	0.04620	0.94536	0.04903	0.04731	1.01616	0.08773	0.03693	0.04892
Mean	8.28204	0.04700	0.95047	0.04895	0.04871	1.00062	0.08717	0.04525	0.05132
%RSD	0.42464	2.42442	0.76155	0.23725	4.06588	2.19656	0.89840	25.99740	6.62627

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	0.26460	0.09303	0.04785	-0.01271	0.04549	0.09559	0.44964	0.04914	0.04456
#2	0.26122	0.08790	0.04778	-0.01603	0.04534	0.09791	0.45851	0.04863	0.04487
Mean	0.26291	0.09046	0.04782	-0.01437	0.04542	0.09675	0.45407	0.04888	0.04471
%RSD	0.90915	4.00675	0.11058	16.34197	0.22368	1.69894	1.38161	0.74022	0.48015

	Zr ppm	Pb calc	Se calc
#1	0.04822	0.04970	0.05367
#2	0.04913	0.04788	0.04493
Mean	0.04868	0.04879	0.04930
%RSD	1.32062	2.62828	12.54672

Method : Paragon File : 111117A Printed : 11/18/2011 12:18:43
 SampleId1 : F111115-1LCS SampleId2 : [SAMPLE]
 Analysis commenced : 11/17/2011 14:53:51

Dilution ratio : 1.00000 to 1.00000 Tray :

Position : TUBE3

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	0.09531	2.05740	1.90530	0.48633	1.94136	0.04663	-0.00502	37.71865	0.05030
#2	0.09651	2.04483	1.90699	0.48192	1.93676	0.04637	-0.00351	37.61553	0.05094
Mean	0.09591	2.05112	1.90614	0.48412	1.93906	0.04650	-0.00427	37.66709	0.05062
%RSD	0.88819	0.43344	0.06264	0.64418	0.16793	0.39451	25.00571	0.19358	0.89610

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.48031	0.19253	0.23899	0.97299	39.91237	0.48784	37.32420	0.47874	0.96249
#2	0.47802	0.19212	0.23875	0.97246	39.77744	0.48606	37.20035	0.47717	0.96341
Mean	0.47917	0.19232	0.23887	0.97272	39.84491	0.48695	37.26227	0.47795	0.96295
%RSD	0.33741	0.14811	0.07088	0.03875	0.23947	0.25822	0.23503	0.23200	0.06753

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	36.54374	0.46590	0.00230	0.48071	0.48185	-0.00594	0.45225	1.96373	1.93103
#2	36.43156	0.46809	-0.01006	0.47610	0.48134	-0.02149	0.45142	1.95608	1.91836
Mean	36.48765	0.46700	-0.00388	0.47841	0.48160	-0.01371	0.45183	1.95991	1.92470
%RSD	0.21739	0.33258	225.10719	0.68161	0.07395	80.18285	0.13011	0.27585	0.46534

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	1.95996	0.48456	0.51390	-0.03978	0.47009	1.90487	-0.04197	0.49039	0.47067
#2	1.95923	0.48072	0.51232	-0.04387	0.46867	1.88991	-0.04285	0.48825	0.46581
Mean	1.95960	0.48264	0.51311	-0.04182	0.46938	1.89739	-0.04241	0.48932	0.46824
%RSD	0.02616	0.56268	0.21743	6.91145	0.21472	0.55754	1.47909	0.30925	0.73402

	Zr ppm	Pb calc	Se calc
#1	0.00607	0.48147	1.94192
#2	0.00568	0.47960	1.93092
Mean	0.00587	0.48053	1.93642
%RSD	4.68205	0.27540	0.40147

Method : Paragon

File : 111117A

Printed : 11/18/2011 12:18:43

SampleId1 : 111119-1

SampleId2 :

[SAMPLE]

Analysis commenced : 11/17/2011 14:55:39

Dilution ratio : 1.00000 to 1.00000 Tray :

Position : TUBE4

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00094	0.05015	0.00184	0.02888	0.01652	0.00005	-0.00172	9.03991	0.00016
#2	-0.00069	0.04253	-0.00351	0.02960	0.01636	0.00002	-0.00539	8.99691	-0.00019

Mean	-0.00082	0.04634	-0.00083	0.02924	0.01644	0.00003	-0.00356	9.01841	-0.00002
%RSD	22.24342	11.62584	453.60665	1.74223	0.67443	76.12647	72.95052	0.33714	1509.98243
	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00077	0.00146	0.02596	0.06575	0.90807	-0.00089	2.21600	0.00729	0.00122
#2	-0.00031	0.00199	0.02595	0.06522	0.89238	-0.00096	2.21759	0.00738	-0.00015
Mean	-0.00054	0.00173	0.02595	0.06548	0.90023	-0.00093	2.21679	0.00733	0.00053
%RSD	60.13553	21.72580	0.02817	0.57308	1.23201	5.05609	0.05055	0.94187	182.09075
	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	125.48584	-0.00065	-0.04258	0.00720	0.00803	7.87447	0.00102	-0.00055	0.00396
#2	124.69216	-0.00032	-0.06139	0.00484	0.00852	7.89771	-0.00139	0.00895	-0.00085
Mean	125.08900	-0.00048	-0.05198	0.00602	0.00828	7.88609	-0.00018	0.00420	0.00155
%RSD	0.44865	48.10223	25.58513	27.69191	4.18125	0.20836	931.53235	159.91858	219.25710
	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	3.98661	0.01063	0.07400	-0.01431	-0.00102	0.00762	-0.04401	-0.00057	0.07402
#2	3.97061	0.00721	0.07361	-0.01356	-0.00118	0.00565	-0.03070	-0.00005	0.07189
Mean	3.97861	0.00892	0.07381	-0.01393	-0.00110	0.00664	-0.03736	-0.00031	0.07295
%RSD	0.28436	27.09109	0.37263	3.80108	10.67362	20.92775	25.19958	117.11664	2.06016
	Zr	Pb	Se						
	ppm	calc	calc						
#1	0.00106	0.00775	0.00245						
#2	0.00134	0.00730	0.00241						
Mean	0.00120	0.00752	0.00243						
%RSD	16.54120	4.30701	1.24885						

Method : Paragon File : 111117A
SampleId1 : 1111150-1 SampleId2 :
Analysis commenced : 11/17/2011 14:57:28
Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/18/2011 12:18:43
[SAMPLE]

Position : TUBE5

Final concentrations

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00135	0.01583	0.00561	0.02987	0.02237	0.00014	-0.00590	350.36256	0.00022
#2	-0.00036	0.02109	0.00172	0.02879	0.02248	0.00012	0.00555	347.95076	-0.00045
Mean	-0.00085	0.01846	0.00367	0.02933	0.02242	0.00013	-0.00017	349.15666	-0.00011
%RSD	82.63474	20.16237	75.07104	2.60531	0.32964	8.29464	4665.75573	0.48843	419.97504
	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00144	-0.00167	-0.00132	-0.00562	5.95526	0.00305	57.64169	0.44679	1.74147
#2	-0.00037	-0.00100	-0.00061	-0.00469	5.90164	0.00300	57.31517	0.44503	1.72959
Mean	-0.00090	-0.00134	-0.00097	-0.00516	5.92845	0.00302	57.47843	0.44591	1.73553

%RSD	83.37914	35.37981	52.55501	12.73367	0.63953	1.31120	0.40169	0.27969	0.48395
	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	78.96023	-0.00142	0.00660	-0.00364	0.00010	298.06329	0.00107	-0.01593	-0.00037
#2	78.43511	-0.00175	0.01735	-0.00215	0.00242	296.97325	0.00012	-0.00597	0.00685
Mean	78.69767	-0.00158	0.01197	-0.00290	0.00126	297.51827	0.00060	-0.01095	0.00324
%RSD	0.47183	14.72116	63.48906	36.43291	130.44172	0.25907	112.38385	64.33680	157.44949
	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	10.88438	-0.00304	2.51380	-0.05416	-0.00372	0.00084	-0.02355	-0.00030	0.00509
#2	10.83048	-0.00646	2.49982	-0.05509	-0.00372	0.00118	-0.02000	0.00058	0.00540
Mean	10.85743	-0.00475	2.50681	-0.05463	-0.00372	0.00101	-0.02178	0.00014	0.00524
%RSD	0.35105	50.90181	0.39430	1.19994	0.00000	24.46694	11.52488	438.31040	4.09429
	Zr	Pb	Se						
	ppm	calc	calc						
#1	-0.00057	-0.00115	-0.00555						
#2	-0.00029	0.00090	0.00258						
Mean	-0.00043	-0.00013	-0.00149						
%RSD	47.23568	1156.24800	386.86822						

Method : Paragon File : 111117A
SampleId1 : 111150-1D SampleId2 :
Analysis commenced : 11/17/2011 14:59:16
Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/18/2011 12:18:43
[SAMPLE]

Position : TUBE6

Final concentrations

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00156	0.02271	0.00306	0.02987	0.02201	0.00011	-0.00611	335.99369	0.00087
#2	-0.00051	0.02585	0.00318	0.02879	0.02195	0.00009	-0.00589	335.67128	0.00002
Mean	-0.00104	0.02428	0.00312	0.02933	0.02198	0.00010	-0.00600	335.83248	0.00045
%RSD	72.35673	9.13802	2.75768	2.60531	0.16815	12.21644	2.59989	0.06789	134.71430
	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00090	-0.00151	-0.00122	-0.00390	5.74334	0.00281	55.85106	0.43317	1.68226
#2	-0.00068	-0.00132	-0.00074	-0.00350	5.72911	0.00278	55.83871	0.43248	1.69036
Mean	-0.00079	-0.00142	-0.00098	-0.00370	5.73623	0.00279	55.84489	0.43283	1.68631
%RSD	20.38430	9.75882	34.01767	7.61118	0.17536	0.90290	0.01563	0.11205	0.33974
	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	77.03049	-0.00146	0.00794	-0.00493	0.00210	290.19781	0.00001	-0.01218	0.00204
#2	76.96328	-0.00127	0.00391	-0.00201	-0.00285	290.36374	0.00036	-0.00548	0.00564
Mean	76.99689	-0.00136	0.00593	-0.00347	-0.00038	290.28078	0.00018	-0.00883	0.00384
%RSD	0.06172	9.49645	48.10201	59.63392	932.11159	0.04042	135.69245	53.63590	66.40083

ted: 11/18/2011 12:19:02 User: MIKE LUNDGREEN

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	10.57286	0.00038	2.44549	-0.05461	-0.00363	0.00281	-0.00935	-0.00086	0.00479
#2	10.58837	-0.00133	2.44625	-0.05990	-0.00347	0.00746	0.00218	0.00012	0.00448
Mean	10.58061	-0.00048	2.44587	-0.05725	-0.00355	0.00514	-0.00358	-0.00037	0.00464
%RSD	0.10360	253.97965	0.02214	6.53334	3.30041	63.94690	227.59707	187.31331	4.63052

	Zr ppm	Pb calc	Se calc
#1	-0.00038	-0.00024	-0.00270
#2	0.00004	-0.00257	0.00194
Mean	-0.00017	-0.00140	-0.00038
%RSD	171.40423	117.02918	862.03619

Method : Paragon File : 111117A
 SampleId1 : 1111150-1L 5X SampleId2 :
 Analysis commenced : 11/17/2011 15:01:04
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/18/2011 12:18:43
 [SAMPLE]

Position : TUBE7

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00041	0.01209	0.00878	0.00366	0.00366	-0.00006	-0.01001	64.56444	0.00033
#2	0.00024	0.00573	0.00269	0.00492	0.00371	-0.00011	-0.00071	64.37195	0.00042
Mean	-0.00009	0.00891	0.00574	0.00429	0.00369	-0.00009	-0.00536	64.46820	0.00037
%RSD	538.15765	50.49211	74.99817	20.75974	1.00227	42.98925	122.61651	0.21112	16.12720

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00093	-0.00163	-0.00216	-0.01265	0.59036	-0.00204	11.26871	0.08976	0.35156
#2	-0.00040	-0.00043	-0.00181	-0.01199	0.59692	-0.00199	11.17866	0.08967	0.35147
Mean	-0.00067	-0.00103	-0.00198	-0.01232	0.59364	-0.00201	11.22368	0.08971	0.35151
%RSD	56.54212	82.10550	12.36336	3.80682	0.78207	1.78878	0.56733	0.07704	0.01848

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	14.05135	-0.00142	-0.00657	-0.00307	0.00016	66.28867	0.00164	-0.00691	-0.00337
#2	13.88283	-0.00124	0.00069	-0.00119	-0.00201	65.90461	-0.00203	-0.01608	0.00254
Mean	13.96709	-0.00133	-0.00294	-0.00213	-0.00093	66.09664	-0.00020	-0.01150	-0.00042
%RSD	0.85319	9.75857	174.36132	62.24500	165.12961	0.41087	1327.86646	56.37644	998.64196

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	2.13826	-0.00518	0.50081	-0.02523	-0.00253	-0.00411	-0.03686	-0.00081	-0.00068
#2	2.11994	0.00166	0.49752	-0.02205	-0.00246	0.00530	-0.01911	0.00016	-0.00037
Mean	2.12910	-0.00176	0.49917	-0.02364	-0.00250	0.00059	-0.02798	-0.00032	-0.00053
%RSD	0.60822	274.82449	0.46609	9.51036	1.87834	1120.21323	44.84897	213.25632	40.88808

	Zr ppm	Pb calc	SeUNDGREEN calc
#1	0.00067	-0.00092	-0.00455
#2	0.00069	-0.00174	-0.00366
Mean	0.00068	-0.00133	-0.00411
%RSD	1.76348	43.64371	15.30471

Method : Paragon File : 111117A
SampleId1 : 1111150-1MS SampleId2 :
Analysis commenced : 11/17/2011 15:02:52
Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/18/2011 12:18:44
[SAMPLE]

Position : TUBE8

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	0.09682	2.09869	1.95511	0.52575	1.95846	0.04603	-0.00481	376.54893	0.05065
#2	0.09912	2.12514	1.96017	0.53079	1.97064	0.04610	0.00579	377.28095	0.05084
Mean	0.09797	2.11191	1.95764	0.52827	1.96455	0.04607	0.00049	376.91494	0.05075
%RSD	1.65949	0.88552	0.18293	0.67465	0.43826	0.10234	1523.09839	0.13733	0.25499

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.47229	0.18609	0.24585	0.96180	54.32394	0.59243	93.25605	0.89645	2.64935
#2	0.47565	0.18835	0.24690	0.96566	54.54894	0.59494	93.63755	0.89960	2.64576
Mean	0.47397	0.18722	0.24638	0.96373	54.43644	0.59368	93.44680	0.89803	2.64755
%RSD	0.50150	0.85390	0.29984	0.28353	0.29227	0.29982	0.28867	0.24765	0.09604

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	114.12538	0.45956	0.01708	0.46726	0.49281	288.50764	0.46143	2.10597	2.09172
#2	114.34835	0.46037	0.01036	0.47995	0.48252	289.64016	0.46574	2.12509	2.06666
Mean	114.23687	0.45997	0.01372	0.47360	0.48766	289.07390	0.46359	2.11553	2.07919
%RSD	0.13801	0.12381	34.62846	1.89376	1.49247	0.27703	0.65638	0.63915	0.85195

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	12.41007	0.48799	2.93494	-0.06023	0.46062	1.91287	-0.06415	0.48355	0.45700
#2	12.46761	0.49226	2.95250	-0.06814	0.46248	1.93545	-0.01800	0.48364	0.45882
Mean	12.43884	0.49012	2.94372	-0.06418	0.46155	1.92416	-0.04107	0.48359	0.45791
%RSD	0.32709	0.61561	0.42188	8.71096	0.28438	0.82989	79.44439	0.01371	0.28146

	Zr ppm	Pb calc	Se calc
#1	-0.00063	0.48430	2.09646
#2	0.00115	0.48166	2.08612
Mean	0.00026	0.48298	2.09129
%RSD	490.86030	0.38675	0.34966

Method : Paragon File : 111117A

Printed : 11/18/2011 12:18:44

SampleId1 : 1111150-1MSD SampleId2 :
 Analysis commenced : 11/17/2011 15:04:42
 Dilution ratio : 1.00000 to 1.00000 Tray :

[SAMPLE]
 Position : TUBE9

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	0.09818	2.12006	1.97355	0.53556	1.97302	0.04646	0.00126	381.25578	0.05162
#2	0.09859	2.11794	1.96909	0.53610	1.97678	0.04649	0.00083	379.92978	0.05091
Mean	0.09839	2.11900	1.97132	0.53583	1.97490	0.04647	0.00104	380.59278	0.05126
%RSD	0.29643	0.07066	0.16002	0.07126	0.13459	0.05841	29.47379	0.24636	0.97880

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.47771	0.18982	0.24785	0.97072	54.62369	0.59771	94.26767	0.90343	2.67287
#2	0.47787	0.18815	0.24858	0.96766	54.65104	0.59878	94.26279	0.90216	2.66881
Mean	0.47779	0.18898	0.24822	0.96919	54.63737	0.59824	94.26523	0.90279	2.67084
%RSD	0.02355	0.62575	0.20855	0.22361	0.03540	0.12648	0.00366	0.10008	0.10742

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	114.51079	0.46769	0.02756	0.48591	0.47832	291.65407	0.46736	2.13135	2.09121
#2	114.44604	0.46692	0.02702	0.48119	0.48163	291.82316	0.46565	2.12478	2.08898
Mean	114.47842	0.46731	0.02729	0.48355	0.47997	291.73862	0.46651	2.12806	2.09009
%RSD	0.03999	0.11633	1.39267	0.69017	0.48690	0.04098	0.25826	0.21852	0.07550

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	12.52298	0.49610	2.96805	-0.06230	0.46279	1.94754	-0.01090	0.48736	0.46915
#2	12.54426	0.49952	2.97231	-0.05952	0.46199	1.94833	-0.02599	0.48690	0.46641
Mean	12.53362	0.49781	2.97018	-0.06091	0.46239	1.94793	-0.01845	0.48713	0.46778
%RSD	0.12009	0.48526	0.10153	3.23145	0.12165	0.02887	57.82567	0.06761	0.41329

	Zr ppm	Pb calc	Se calc
#1	0.00010	0.48085	2.10458
#2	-0.00018	0.48148	2.10090
Mean	-0.00004	0.48116	2.10274
%RSD	486.82763	0.09300	0.12370

Method : Paragon File : 111117A
 SampleId1 : 1111179-1 SampleId2 :
 Analysis commenced : 11/17/2011 15:06:30
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/18/2011 12:18:44
 [SAMPLE]
 Position : TUBE10

Final concentrations

Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
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#1	-0.00027	0.05084	0.00440	0.03464	0.09792	0.00028	-0.00201	6.30573	0.00012
#2	-0.00049	0.05195	0.00634	0.03410	0.09792	0.00022	-0.00179	6.27015	0.00033
Mean	-0.00038	0.05139	0.00537	0.03437	0.09792	0.00025	-0.00190	6.28794	0.00022
%RSD	40.02025	1.53546	25.63044	1.11153	0.00000	17.49957	8.26977	0.40004	64.55455

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00088	-0.00079	-0.00179	-0.00814	2.06364	0.00266	1.39411	0.00406	0.00508
#2	-0.00057	-0.00124	-0.00121	-0.00814	2.05124	0.00256	1.38460	0.00396	0.00324
Mean	-0.00073	-0.00102	-0.00150	-0.00814	2.05744	0.00261	1.38936	0.00401	0.00416
%RSD	29.68154	31.12972	27.59165	0.00000	0.42623	2.76373	0.48383	1.72144	31.20179

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	166.19160	-0.00175	-0.00603	-0.00003	0.00153	42.15899	0.00122	-0.00443	0.00644
#2	166.24636	-0.00230	-0.00281	0.00227	0.00046	42.19708	0.00078	-0.00784	0.00414
Mean	166.21898	-0.00202	-0.00442	0.00112	0.00100	42.17804	0.00100	-0.00613	0.00529
%RSD	0.02329	19.20442	51.58317	145.46701	75.84686	0.06387	30.56207	39.30030	30.78836

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	4.52066	-0.00133	0.29953	-0.00533	-0.00159	0.00110	-0.03952	-0.00053	0.03788
#2	4.53221	0.00251	0.29963	-0.00505	-0.00179	0.00192	-0.02000	0.00007	0.03819
Mean	4.52644	0.00059	0.29958	-0.00519	-0.00169	0.00151	-0.02976	-0.00023	0.03803
%RSD	0.18039	460.79828	0.02477	3.82271	8.32587	38.59732	46.38814	185.83191	0.56448

	Zr ppm	Pb calc	Se calc
#1	-0.00101	0.00101	0.00282
#2	-0.00086	0.00107	0.00015
Mean	-0.00093	0.00104	0.00149
%RSD	11.38900	3.60353	126.95009

Method : Paragon

File : 111117A

Printed : 11/18/2011 12:18:44

SampleId1 : CCV

SampleId2 :

[CV]

Analysis commenced : 11/17/2011 15:09:00

Dilution ratio : 1.00000 to 1.00000 Tray :

Position : STD6

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	0.21978	52.05954	0.51965	1.03592	1.02453	0.49123	0.52871	51.09544	0.53555
#2	0.21862	52.04556	0.52791	1.03610	1.02721	0.49160	0.53454	51.16142	0.53488
Mean	0.21920	52.05255	0.52378	1.03601	1.02587	0.49141	0.53162	51.12843	0.53521
%RSD	0.37430	0.01900	1.11426	0.01228	0.18496	0.05384	0.77446	0.09124	0.08832

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.50752	1.01824	1.02834	20.79819	52.57387	0.55598	51.32793	0.99517	1.02825

#2	0.50874	1.02142	1.02760	20.83525	52.63332	0.55626	51.37188	0.99763	1.03092
Mean	0.50813	1.01983	1.02797	20.81672	52.60359	0.55612	51.34990	0.99640	1.02958
%RSD	0.16986	0.22042	0.05090	0.12587	0.07990	0.03645	0.06053	0.17449	0.18319

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	49.36479	1.00335	5.08824	1.00813	1.00170	5.31682	0.48643	1.06138	1.02705
#2	49.33506	0.99925	5.02945	1.01129	1.00483	5.32458	0.48768	1.05384	1.02695
Mean	49.34993	1.00130	5.05885	1.00971	1.00326	5.32070	0.48706	1.05761	1.02700
%RSD	0.04260	0.28936	0.82167	0.22108	0.22090	0.10306	0.18217	0.50388	0.00645

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	5.04537	1.01584	0.53987	0.32211	0.49030	0.52497	4.99765	0.50591	0.96903
#2	5.05209	1.01584	0.54140	0.33237	0.49064	0.51667	5.02420	0.50638	0.97390
Mean	5.04873	1.01584	0.54064	0.32724	0.49047	0.52082	5.01093	0.50614	0.97146
%RSD	0.09410	0.00003	0.20052	2.21657	0.04938	1.12709	0.37452	0.06599	0.35401

	Zr ppm	Pb calc	Se calc
#1	1.00289	1.00384	1.03848
#2	1.00445	1.00698	1.03591
Mean	1.00367	1.00541	1.03719
%RSD	0.10969	0.22096	0.17536

Method : Paragon

File : 111117A

Printed : 11/18/2011 12:18:45

SampleId1 : CCB

SampleId2 :

[CB]

Analysis commenced : 11/17/2011 15:10:54

Dilution ratio : 1.00000 to 1.00000 Tray :

Position : STD2

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00101	0.04562	0.00087	-0.00048	-0.00104	0.00026	0.00230	-0.04752	0.00021
#2	-0.00108	0.04856	0.00123	-0.00156	-0.00078	0.00026	-0.00288	-0.03574	0.00021
Mean	-0.00104	0.04709	0.00105	-0.00102	-0.00091	0.00026	-0.00029	-0.04163	0.00021
%RSD	4.59688	4.40804	24.54896	74.99748	20.26262	0.96225	1271.84554	20.00059	0.84281

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00132	-0.00092	-0.00299	-0.00562	-0.27888	-0.00281	-0.03684	-0.00082	-0.00153
#2	-0.00102	-0.00052	-0.00215	-0.00310	-0.27159	-0.00280	-0.03209	-0.00063	-0.00355
Mean	-0.00117	-0.00072	-0.00257	-0.00436	-0.27523	-0.00280	-0.03447	-0.00073	-0.00254
%RSD	18.43760	39.24926	23.05911	40.87175	1.87426	0.12861	9.74687	19.05161	56.21053

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	0.12734	-0.00237	-0.00926	-0.00233	-0.00126	-0.02149	-0.00446	-0.00708	0.00154
#2	0.13107	-0.00233	-0.01517	-0.00296	0.00121	-0.01371	-0.00307	-0.01096	0.00194

Mean	0.12921	-0.00235	-0.01221	-0.00264	-0.00003	-0.01760	-0.00377	-0.00902	0.00174
%RSD	2.04139	1.10090	34.22717	16.84511	6847.72940	31.23635	25.97947	30.48274	16.33043
	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm								
#1	-0.01693	-0.00689	-0.00328	-0.00608	-0.00215	0.00643	-0.04308	-0.00053	-0.00250
#2	-0.01724	-0.00390	-0.00319	-0.00163	-0.00205	-0.00215	-0.04042	-0.00058	-0.00219
Mean	-0.01709	-0.00539	-0.00323	-0.00386	-0.00210	0.00214	-0.04175	-0.00056	-0.00235
%RSD	1.25923	39.22721	1.96125	81.53788	3.34291	283.62327	4.50691	5.86451	9.14830
	Zr	Pb	Se						
	ppm	calc	calc						
#1	0.00066	-0.00161	-0.00133						
#2	0.00046	-0.00018	-0.00236						
Mean	0.00056	-0.00090	-0.00185						
%RSD	24.12784	113.22120	39.36879						

Method : Paragon

File : 111117A

Printed : 11/18/2011 12:18:45

SampleId1 : 1111184-1

SampleId2 :

[SAMPLE]

Analysis commenced : 11/17/2011 15:12:57

Dilution ratio : 1.00000 to 1.00000 Tray :

Position : TUBE11

Final concentrations

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	ppm								
#1	-0.00088	0.02682	0.00342	0.02059	0.06890	0.00023	-0.00461	56.46162	0.00078
#2	-0.00055	0.03539	0.00026	0.02032	0.06895	0.00024	-0.00850	56.44688	0.00013
Mean	-0.00071	0.03110	0.00184	0.02046	0.06892	0.00024	-0.00655	56.45425	0.00045
%RSD	33.01509	19.47228	121.42237	0.93373	0.05364	0.73121	41.98638	0.01846	101.54512
	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm								
#1	-0.00130	-0.00099	-0.00155	-0.00894	1.90898	-0.00001	14.36583	0.21357	-0.00328
#2	-0.00115	-0.00180	-0.00203	-0.00986	1.89804	-0.00003	14.37325	0.21347	-0.00227
Mean	-0.00122	-0.00140	-0.00179	-0.00940	1.90351	-0.00002	14.36954	0.21352	-0.00277
%RSD	8.83015	40.85758	18.97016	6.98402	0.40650	92.78604	0.03653	0.03240	25.77674
	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	ppm								
#1	22.80843	-0.00135	-0.00980	-0.00235	0.00556	3.40433	0.00241	-0.01174	0.00564
#2	22.79552	-0.00127	-0.00711	0.00080	0.00304	3.42374	-0.00431	-0.00396	0.00284
Mean	22.80198	-0.00131	-0.00845	-0.00078	0.00430	3.41403	-0.00095	-0.00785	0.00424
%RSD	0.04003	3.95805	22.48355	287.19468	41.38546	0.40191	500.13514	70.06134	46.77632
	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm								
#1	4.07057	-0.00432	1.16701	-0.02034	-0.00235	0.00299	-0.04219	-0.00077	0.00236
#2	4.07732	-0.00304	1.16881	-0.02223	-0.00250	0.00101	-0.04219	-0.00137	0.00236
Mean	4.07394	-0.00368	1.16791	-0.02129	-0.00242	0.00200	-0.04219	-0.00107	0.00236

%RSD	0.11710	24.62160	0.10898	6.28815	4.19032	69.68930	0.00106	40.06266	0.00000
	Zr	Pb	Se						
	ppm	calc	calc						
#1	0.00079	0.00292	-0.00015						
#2	0.00119	0.00229	0.00057						
Mean	0.00099	0.00261	0.00021						
%RSD	28.39314	17.04515	238.82107						

Method : Paragon File : 111117A Printed : 11/18/2011 12:18:45
SampleId1 : 1111179-1 5X SampleId2 : [SAMPLE]
Analysis commenced : 11/17/2011 15:14:43
Dilution ratio : 1.00000 to 1.00000 Tray : Position : TUBE95

Final concentrations

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00041	0.02166	0.00282	0.00529	0.01850	0.00008	-0.00288	1.17516	0.00007
#2	-0.00075	0.02127	0.00002	0.00312	0.01840	0.00001	0.00187	1.16247	-0.00022
Mean	-0.00058	0.02147	0.00142	0.00420	0.01845	0.00004	-0.00050	1.16882	-0.00008
%RSD	41.50894	1.30927	139.70647	36.35042	0.40059	104.81988	668.19207	0.76818	267.12456

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00167	-0.00113	-0.00239	-0.01132	0.47546	-0.00101	0.21868	0.00015	-0.00300
#2	-0.00122	-0.00163	-0.00228	-0.01172	0.46196	-0.00106	0.21181	-0.00014	-0.00227
Mean	-0.00145	-0.00138	-0.00233	-0.01152	0.46871	-0.00103	0.21524	0.00001	-0.00263
%RSD	22.35080	25.99468	3.49409	2.44186	2.03610	3.41775	2.25472	2756.58887	19.72737

	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	36.32697	-0.00091	-0.01302	-0.00283	0.00020	8.17654	-0.00236	-0.01019	0.00324
#2	36.47038	-0.00116	-0.00980	-0.00066	0.00212	8.16492	-0.00291	-0.01096	0.00514
Mean	36.39867	-0.00103	-0.01141	-0.00175	0.00116	8.17073	-0.00264	-0.01057	0.00419
%RSD	0.27860	17.53361	19.98878	87.66022	116.77460	0.10054	14.76692	5.16933	32.11895

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	0.85378	-0.00304	0.05735	-0.00341	-0.00209	0.00295	-0.04307	-0.00119	0.00752
#2	0.85626	-0.00432	0.05750	-0.00677	-0.00225	0.00434	-0.03686	-0.00132	0.00570
Mean	0.85502	-0.00368	0.05743	-0.00509	-0.00217	0.00365	-0.03997	-0.00125	0.00661
%RSD	0.20490	24.61271	0.18416	46.63053	5.40128	27.06272	10.99201	7.87255	19.48799

	Zr	Pb	Se
	ppm	calc	calc
#1	0.00006	-0.00081	-0.00123
#2	0.00006	0.00119	-0.00022
Mean	0.00006	0.00019	-0.00073
%RSD	3.25830	735.09332	98.47032

ted: 11/18/2011 12:19:02 User: MIKE LUNDGREEN
 Method : Paragon File : 111117A
 SampleId1 : CCV SampleId2 :
 Analysis commenced : 11/17/2011 15:16:33
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/18/2011 12:18:45
 [CV]

Position : STD6

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	0.21343	50.83828	0.49878	0.99886	0.99580	0.47612	0.52147	49.50857	0.52170
#2	0.21377	50.73509	0.50788	0.99724	0.99786	0.47677	0.51759	49.56394	0.52212
Mean	0.21360	50.78668	0.50333	0.99805	0.99683	0.47645	0.51953	49.53625	0.52191
%RSD	0.11190	0.14368	1.27902	0.11472	0.14553	0.09656	0.52790	0.07904	0.05668

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.49221	0.98904	1.00003	20.17720	51.58779	0.53117	49.94354	0.96812	0.99468
#2	0.49176	0.99062	1.00003	20.20445	51.45724	0.52982	49.90818	0.96921	0.99376
Mean	0.49198	0.98983	1.00003	20.19083	51.52252	0.53049	49.92586	0.96866	0.99422
%RSD	0.06548	0.11316	0.00044	0.09544	0.17918	0.17943	0.05009	0.07896	0.06541

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	48.48982	0.95805	4.86485	0.97889	0.98320	5.12294	0.47028	1.01540	1.00929
#2	48.33455	0.96153	4.85342	0.97449	0.97455	5.15396	0.47222	1.02465	0.99911
Mean	48.41218	0.95979	4.85913	0.97669	0.97888	5.13845	0.47125	1.02003	1.00420
%RSD	0.22679	0.25606	0.16625	0.31892	0.62504	0.42691	0.29164	0.64073	0.71630

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	4.91825	0.98045	0.52379	0.31147	0.47810	0.49848	4.87233	0.49011	0.93803
#2	4.90872	0.98983	0.52490	0.30487	0.47899	0.50358	4.86434	0.49323	0.93712
Mean	4.91348	0.98514	0.52434	0.30817	0.47855	0.50103	4.86833	0.49167	0.93757
%RSD	0.13711	0.67356	0.14997	1.51522	0.13061	0.71945	0.11603	0.44901	0.06877

	Zr ppm	Pb calc	Se calc
#1	0.97626	0.98177	1.01132
#2	0.97667	0.97453	1.00762
Mean	0.97647	0.97815	1.00947
%RSD	0.02957	0.52325	0.25968

Method : Paragon File : 111117A
 SampleId1 : CCB SampleId2 :
 Analysis commenced : 11/17/2011 15:20:02
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/18/2011 12:18:45
 [CB]

Position : STD2

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00109	0.02142	-0.00144	-0.00201	-0.00068	0.00021	-0.00439	-0.02548	0.00042
#2	-0.00062	0.02958	0.00196	-0.00192	-0.00073	0.00020	-0.00266	-0.02789	-0.00021
Mean	-0.00086	0.02550	0.00026	-0.00196	-0.00070	0.00021	-0.00352	-0.02668	0.00011
%RSD	38.31581	22.62323	924.70771	3.24152	5.25787	3.34081	34.70944	6.40061	420.29169

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00117	-0.00130	-0.00192	-0.00018	-0.23803	-0.00276	-0.02470	-0.00043	-0.00107
#2	-0.00018	-0.00026	-0.00204	-0.00071	-0.24204	-0.00279	-0.01837	-0.00073	-0.00300
Mean	-0.00067	-0.00078	-0.00198	-0.00045	-0.24003	-0.00277	-0.02153	-0.00058	-0.00204
%RSD	103.91874	93.92204	4.43107	83.90786	1.18201	0.76461	20.80128	35.81462	66.96350

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	0.13809	-0.00281	-0.01329	-0.00218	0.00010	-0.01760	-0.00347	-0.01002	0.00254
#2	0.13727	-0.00131	-0.01678	-0.00261	0.00032	-0.01371	-0.00181	-0.00940	-0.00017
Mean	0.13768	-0.00206	-0.01504	-0.00240	0.00021	-0.01566	-0.00264	-0.00971	0.00119
%RSD	0.42150	51.55854	16.42945	12.91988	74.62208	17.55712	44.47872	4.56516	161.17698

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	-0.02119	-0.00432	-0.00305	-0.00558	-0.00210	0.00238	-0.02977	0.00003	-0.00128
#2	-0.02164	-0.00560	-0.00307	-0.00511	-0.00209	0.00122	-0.02444	-0.00095	-0.00250
Mean	-0.02141	-0.00496	-0.00306	-0.00534	-0.00209	0.00180	-0.02710	-0.00046	-0.00189
%RSD	1.49864	18.25957	0.34523	6.29239	0.37340	45.39369	13.89252	149.78749	45.40465

	Zr ppm	Pb calc	Se calc
#1	0.00072	-0.00066	-0.00164
#2	0.00083	-0.00066	-0.00324
Mean	0.00077	-0.00066	-0.00244
%RSD	9.98410	0.32716	46.20116

Method : Paragon

File : 111117A

Printed : 11/18/2011 12:18:46

SampleId1 : IP111116-3MB

SampleId2 :

[SAMPLE]

Analysis commenced : 11/17/2011 15:21:45

Dilution ratio : 1.00000 to 1.00000 Tray :

Position : TUBE12

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00048	-0.00896	-0.00229	-0.00282	-0.00109	-0.00001	-0.00288	-0.01340	-0.00012
#2	-0.00061	-0.00433	-0.00290	-0.00147	-0.00089	-0.00001	0.00447	-0.00736	-0.00055
Mean	-0.00055	-0.00665	-0.00260	-0.00214	-0.00099	-0.00001	0.00079	-0.01038	-0.00033
%RSD	17.20995	49.19024	16.55312	44.53923	14.92687	1.98439	654.87610	41.13625	92.09765

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
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	ppm								
#1	-0.00140	-0.00170	-0.00300	-0.01291	-0.23365	-0.00301	-0.06166	-0.00092	-0.00383
#2	-0.00102	-0.00056	-0.00252	-0.01172	-0.22672	-0.00293	-0.05374	-0.00102	-0.00502
Mean	-0.00121	-0.00113	-0.00276	-0.01232	-0.23018	-0.00297	-0.05770	-0.00097	-0.00442
%RSD	22.28832	71.36009	12.28279	6.85228	2.12901	1.90507	9.70475	7.12588	19.08114

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	0.12458	-0.00178	-0.01813	-0.00148	0.00074	-0.01760	0.00045	-0.01890	-0.00117
#2	0.12772	-0.00208	-0.01813	-0.00175	-0.00022	-0.01371	-0.00168	-0.01843	0.00674
Mean	0.12615	-0.00193	-0.01813	-0.00161	0.00026	-0.01566	-0.00062	-0.01866	0.00279
%RSD	1.75633	10.72796	0.00000	11.74058	262.55690	17.55712	244.19379	1.77396	200.77683

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	-0.02323	-0.00261	-0.00343	-0.00969	-0.00237	0.00423	-0.03508	-0.00081	-0.00128
#2	-0.02368	-0.00560	-0.00331	0.00036	-0.00205	0.00597	-0.03331	-0.00114	-0.00128
Mean	-0.02346	-0.00411	-0.00337	-0.00467	-0.00221	0.00510	-0.03420	-0.00098	-0.00128
%RSD	1.34382	51.47310	2.51055	152.25828	10.23401	24.15560	3.66856	23.59394	0.00000

	Zr ppm	Pb calc	Se calc
#1	0.00022	0.00000	-0.00707
#2	-0.00023	-0.00073	-0.00164
Mean	-0.00001	-0.00036	-0.00436
%RSD	5300.16201	142.16426	88.22750

Method : Paragon File : 111117A
SampleId1 : IP111116-3RVS SampleId2 :
Analysis commenced : 11/17/2011 15:23:22
Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/18/2011 12:18:46
[SAMPLE]
Position : TUBE13

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	0.00988	0.99717	0.05172	0.04707	0.04704	0.00977	0.09982	4.83379	0.02062
#2	0.01026	1.00003	0.05452	0.04860	0.04710	0.00971	0.09789	4.82833	0.02067
Mean	0.01007	0.99860	0.05312	0.04784	0.04707	0.00974	0.09886	4.83106	0.02064
%RSD	2.70583	0.20209	3.72422	2.26295	0.07853	0.42931	1.38608	0.07998	0.15796

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.01814	0.04704	0.04587	0.99031	7.93005	0.03975	4.84891	0.04696	0.09361
#2	0.01882	0.04780	0.04597	0.99165	7.90962	0.03966	4.83939	0.04696	0.09572
Mean	0.01848	0.04742	0.04592	0.99098	7.91983	0.03971	4.84415	0.04696	0.09467
%RSD	2.62401	1.13645	0.16054	0.09509	0.18237	0.15114	0.13891	0.00000	1.57783

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
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#1	8.22605	0.04612	0.93000	0.04591	0.04891	1.01227	0.08816	0.05217	0.05242
#2	8.21161	0.04766	0.92084	0.04553	0.04775	0.99285	0.08972	0.04192	0.04892
Mean	8.21883	0.04689	0.92542	0.04572	0.04833	1.00256	0.08894	0.04705	0.05067
%RSD	0.12422	2.31964	0.69979	0.58839	1.69828	1.37019	1.23678	15.40478	4.89402

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	0.25904	0.09943	0.04775	-0.01231	0.04505	0.10023	0.45407	0.04835	0.04608
#2	0.25946	0.09559	0.04781	-0.01273	0.04480	0.10175	0.47448	0.04793	0.04456
Mean	0.25925	0.09751	0.04778	-0.01252	0.04492	0.10099	0.46428	0.04814	0.04532
%RSD	0.11348	2.78769	0.08853	2.37181	0.38267	1.06405	3.10802	0.61495	2.36861

	Zr ppm	Pb calc	Se calc
#1	0.04908	0.04791	0.05234
#2	0.04940	0.04701	0.04659
Mean	0.04924	0.04746	0.04946
%RSD	0.46063	1.34223	8.22302

Method : Paragon

File : 111117A

Printed : 11/18/2011 12:18:46

SampleId1 : IP111116-3LCS

SampleId2 :

[SAMPLE]

Analysis commenced : 11/17/2011 15:25:11

Dilution ratio : 1.00000 to 1.00000 Tray :

Position : TUBE14

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	0.09799	2.04729	1.95945	0.49677	1.93930	0.04878	-0.00265	38.39391	0.05067
#2	0.09732	2.05478	1.95137	0.49425	1.94062	0.04873	-0.00156	38.31651	0.05140
Mean	0.09766	2.05104	1.95541	0.49551	1.93996	0.04876	-0.00210	38.35521	0.05103
%RSD	0.48209	0.25821	0.29215	0.35964	0.04823	0.06861	36.41554	0.14268	1.01173

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.48632	0.19384	0.24032	0.97685	37.85694	0.49830	37.70326	0.48040	0.98079
#2	0.48412	0.19257	0.24176	0.97619	37.82484	0.49760	37.65894	0.48021	0.97610
Mean	0.48522	0.19320	0.24104	0.97652	37.84089	0.49795	37.68110	0.48030	0.97845
%RSD	0.32123	0.46777	0.42225	0.04825	0.05997	0.10021	0.08316	0.02886	0.33897

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	36.61583	0.47611	-0.00953	0.48508	0.48398	-0.01760	0.45773	2.07864	2.02611
#2	36.54280	0.47659	-0.02054	0.48523	0.48292	-0.00982	0.46487	2.07054	2.03391
Mean	36.57931	0.47635	-0.01504	0.48516	0.48345	-0.01371	0.46130	2.07459	2.03001
%RSD	0.14118	0.07064	51.81607	0.02308	0.15467	40.09146	1.09474	0.27587	0.27194

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	1.98199	0.48841	0.51375	-0.04403	0.46860	1.95791	-0.05351	0.49127	0.47644

#2	1.98285	0.48798	0.51393	-0.04125	0.46825	1.93812	-0.05173	0.49164	0.47583
Mean	1.98242	0.48819	0.51384	-0.04264	0.46842	1.94801	-0.05262	0.49146	0.47614
%RSD	0.03054	0.06178	0.02481	4.60582	0.05337	0.71833	2.38585	0.05353	0.09023

	Zr ppm	Pb calc	Se calc
#1	0.00527	0.48434	2.04360
#2	0.00436	0.48369	2.04611
Mean	0.00482	0.48402	2.04485
%RSD	13.29493	0.09534	0.08687

Method : Paragon

File : 111117A

Printed : 11/18/2011 12:18:46

SampleId1 : 1111185-2

SampleId2 :

[SAMPLE]

Analysis commenced : 11/17/2011 15:27:00

Dilution ratio : 1.00000 to 1.00000 Tray :

Position : TUBE15

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	0.00018	0.02625	0.00196	0.07012	0.09525	0.00171	-0.00092	70.55524	0.00064
#2	-0.00193	0.01496	-0.00047	0.06985	0.09520	0.00162	-0.00958	69.59471	-0.00037
Mean	-0.00088	0.02061	0.00075	0.06999	0.09522	0.00166	-0.00525	70.07498	0.00014
%RSD	170.03204	38.73690	230.28505	0.27294	0.03883	3.57673	116.54383	0.96925	524.07949

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00020	-0.00067	-0.00049	0.02436	12.68527	-0.00207	8.19670	0.01803	0.00802
#2	-0.00210	-0.00253	-0.00142	0.02383	12.67980	-0.00219	8.12896	0.01764	0.00848
Mean	-0.00115	-0.00160	-0.00095	0.02409	12.68254	-0.00213	8.16283	0.01784	0.00825
%RSD	117.14290	82.27575	69.06207	1.55734	0.03050	3.98479	0.58680	1.54926	3.93605

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	57.14224	0.00082	0.02810	-0.00026	-0.00041	29.37920	0.00068	-0.01002	0.00715
#2	57.16756	-0.00178	0.02165	-0.00884	0.00475	29.26419	-0.00197	-0.00055	0.00926
Mean	57.15490	-0.00048	0.02487	-0.00455	0.00217	29.32169	-0.00064	-0.00529	0.00820
%RSD	0.03132	379.47239	18.33714	133.28277	167.90589	0.27735	290.25607	126.59918	18.13593

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	2.23280	0.00166	0.34968	-0.00222	-0.00174	0.00263	-0.01825	0.00208	0.00175
#2	2.21779	-0.00261	0.34944	-0.01863	-0.00207	0.00075	-0.05552	-0.00025	0.00145
Mean	2.22530	-0.00048	0.34956	-0.01043	-0.00190	0.00169	-0.03688	0.00092	0.00160
%RSD	0.47698	632.27318	0.04855	111.26154	11.89642	78.40019	71.45885	179.58981	13.41600

	Zr ppm	Pb calc	Se calc
#1	-0.00018	-0.00036	0.00143
#2	-0.00027	0.00022	0.00599

Mean -0.00023 -0.00007 0.00371UNDGREEN
 %RSD 29.66686 611.50678 86.75712

Method : Paragon File : 111117A Printed : 11/18/2011 12:18:46
 SampleId1 : 1111185-3 SampleId2 : [SAMPLE]
 Analysis commenced : 11/17/2011 15:28:48
 Dilution ratio : 1.00000 to 1.00000 Tray : Position : TUBE16

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00057	0.01862	0.00184	0.07048	0.09368	0.00167	-0.00136	69.73169	-0.00023
#2	-0.00050	0.01689	-0.00205	0.07147	0.09405	0.00169	0.00016	69.72617	0.00025
Mean	-0.00053	0.01775	-0.00010	0.07098	0.09386	0.00168	-0.00060	69.72893	0.00001
%RSD	9.22872	6.91371	2634.43484	0.98681	0.27575	0.46195	178.74412	0.00560	3104.95427

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00119	-0.00131	-0.00122	-0.01212	12.60284	-0.00222	8.12155	-0.00102	0.00683
#2	-0.00027	-0.00068	-0.00074	-0.01172	12.58789	-0.00222	8.11679	-0.00092	0.00701
Mean	-0.00073	-0.00100	-0.00098	-0.01192	12.59536	-0.00222	8.11917	-0.00097	0.00692
%RSD	88.36435	45.41262	34.78714	2.36034	0.08396	0.15912	0.04148	7.12588	1.87749

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	56.91328	-0.00069	0.02272	-0.00180	-0.00170	29.31786	-0.00045	-0.00098	0.00304
#2	56.80424	-0.00219	0.02084	0.00118	-0.00207	29.34469	0.00137	-0.00565	-0.00037
Mean	56.85876	-0.00144	0.02178	-0.00031	-0.00188	29.33128	0.00046	-0.00331	0.00133
%RSD	0.13560	73.90094	6.10717	683.36842	13.70659	0.06469	278.93240	99.71762	180.49052

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	2.19226	0.00251	0.34830	-0.01950	-0.00263	-0.00109	-0.00580	0.00147	-0.00007
#2	2.19284	-0.00048	0.34780	-0.01238	-0.00215	0.00459	-0.00669	0.00133	0.00054
Mean	2.19255	0.00102	0.34805	-0.01594	-0.00239	0.00175	-0.00624	0.00140	0.00023
%RSD	0.01893	207.74299	0.10057	31.55747	14.05246	229.71653	10.05796	7.05830	183.51413

	Zr ppm	Pb calc	Se calc
#1	0.00067	-0.00173	0.00170
#2	0.00008	-0.00098	-0.00213
Mean	0.00037	-0.00136	-0.00021
%RSD	112.67793	39.00940	1272.81697

Method : Paragon File : 111117A Printed : 11/18/2011 12:18:47
 SampleId1 : 1111185-4 SampleId2 : [SAMPLE]
 Analysis commenced : 11/17/2011 15:30:37
 Dilution ratio : 1.00000 to 1.00000 Tray : Position : TUBE17

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00048	0.05543	0.00574	0.00889	0.02253	0.00031	-0.00158	39.08884	0.00033
#2	-0.00062	0.04869	-0.00096	0.00943	0.02248	0.00028	-0.00158	39.05673	0.00042
Mean	-0.00055	0.05206	0.00239	0.00916	0.02250	0.00030	-0.00158	39.07279	0.00037
%RSD	17.88519	9.16009	198.00803	4.17228	0.16425	6.31827	0.10524	0.05812	16.86373

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.00016	-0.00049	-0.00228	0.13462	78.94977	-0.00032	5.49926	0.15185	0.02813
#2	0.00054	-0.00076	-0.00180	0.13542	78.93920	-0.00031	5.50667	0.15204	0.02905
Mean	0.00035	-0.00063	-0.00204	0.13502	78.94448	-0.00032	5.50297	0.15195	0.02859
%RSD	77.48752	30.54583	16.54816	0.41705	0.00947	3.34620	0.09513	0.09102	2.27133

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	230.52760	-0.00138	-0.00899	0.00109	-0.00189	149.65331	-0.00463	-0.00008	0.00567
#2	230.09273	-0.00072	-0.02995	-0.00107	-0.00207	149.28554	0.00086	-0.00288	-0.00104
Mean	230.31017	-0.00105	-0.01947	0.00001	-0.00198	149.46943	-0.00189	-0.00148	0.00232
%RSD	0.13352	44.30176	76.12650	23810.42613	6.67947	0.17399	205.72044	133.43607	204.90193

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	4.81508	0.00337	0.08974	-0.01600	-0.00139	0.00478	-0.03518	-0.00097	0.00661
#2	4.80584	0.00038	0.08980	-0.01408	-0.00145	0.00838	-0.03075	0.00029	0.00600
Mean	4.81046	0.00187	0.08977	-0.01504	-0.00142	0.00658	-0.03297	-0.00034	0.00631
%RSD	0.13587	112.99448	0.04714	9.01910	2.75413	38.66882	9.51705	259.76677	6.80874

	Zr ppm	Pb calc	Se calc
#1	-0.00038	-0.00090	0.00376
#2	0.00004	-0.00174	-0.00165
Mean	-0.00017	-0.00132	0.00105
%RSD	174.50155	45.29645	363.79152

Method : Paragon File : 111117A
 SampleId1 : 1111185-5 SampleId2 :
 Analysis commenced : 11/17/2011 15:32:25
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/18/2011 12:18:47
 [SAMPLE]

Position : TUBE18

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00034	0.01190	-0.00193	0.00934	0.02253	0.00045	-0.00093	40.12241	0.00021
#2	-0.00186	0.00615	-0.00278	0.00754	0.02237	0.00037	-0.00742	39.64030	0.00011
Mean	-0.00110	0.00903	-0.00236	0.00844	0.02245	0.00041	-0.00418	39.88136	0.00016
%RSD	98.01309	45.01922	25.56854	15.09519	0.49388	13.87578	109.83744	0.85479	46.37523

ted: 11/18/2011 12:19:02 User: MIKE LUNDGREEN

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.00046	-0.00123	-0.00167	0.04320	78.27448	-0.00022	5.64892	0.15772	0.02841
#2	-0.00091	-0.00246	-0.00274	0.04160	78.61431	-0.00031	5.60238	0.15635	0.02831
Mean	-0.00022	-0.00184	-0.00220	0.04240	78.44440	-0.00027	5.62565	0.15703	0.02836
%RSD	436.06089	47.21297	34.12929	2.65500	0.30633	22.51300	0.58493	0.61652	0.22897

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	230.62245	-0.00039	-0.02001	-0.00128	0.00077	151.12008	-0.00336	-0.01471	0.00365
#2	230.31110	-0.00244	-0.03371	-0.01001	0.00587	150.42108	-0.00489	-0.01768	0.00475
Mean	230.46678	-0.00142	-0.02686	-0.00565	0.00332	150.77058	-0.00412	-0.01619	0.00420
%RSD	0.09553	102.24094	36.07947	109.31999	108.55853	0.32783	26.29136	12.99006	18.54799

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	4.83049	-0.00219	0.09137	-0.00209	-0.00198	0.00010	-0.04045	-0.00071	0.00843
#2	4.80412	-0.00390	0.09137	-0.00506	-0.00230	-0.00594	-0.06263	-0.00155	0.00843
Mean	4.81731	-0.00304	0.09137	-0.00358	-0.00214	-0.00292	-0.05154	-0.00113	0.00843
%RSD	0.38704	39.72980	0.00000	58.68626	10.60448	146.25975	30.43866	52.53558	0.00000

	Zr ppm	Pb calc	Se calc
#1	-0.00140	0.00009	-0.00246
#2	-0.00170	0.00058	-0.00272
Mean	-0.00155	0.00034	-0.00259
%RSD	13.75614	104.28739	6.97759

Method : Paragon File : 111117A
 SampleId1 : 1111185-6 SampleId2 :
 Analysis commenced : 11/17/2011 15:34:18
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/18/2011 12:18:47
 [SAMPLE]

Position : TUBE19

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00114	0.06397	0.00269	0.15279	0.20301	0.00036	-0.00244	63.02397	-0.00041
#2	-0.00087	0.07008	-0.00473	0.15198	0.20416	0.00036	-0.00331	63.26716	0.00014
Mean	-0.00101	0.06702	-0.00102	0.15238	0.20359	0.00036	-0.00287	63.14557	-0.00014
%RSD	19.15511	6.44893	516.00810	0.37605	0.39986	0.14341	21.30554	0.27233	288.66244

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.00018	-0.00103	-0.00107	0.88439	58.57705	0.00337	6.38723	0.50981	-0.00070
#2	0.00026	-0.00079	-0.00107	0.88919	58.62555	0.00340	6.41262	0.51265	-0.00061
Mean	0.00022	-0.00091	-0.00107	0.88679	58.60130	0.00339	6.39993	0.51123	-0.00066
%RSD	25.17383	18.56783	0.31901	0.38236	0.05852	0.62564	0.28052	0.39321	9.85500

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	35.20569	0.00122	0.02138	-0.00243	-0.00055	10.37876	-0.00501	-0.01013	0.00001
#2	35.23095	0.00107	0.02326	-0.00181	-0.00009	10.45226	0.00018	-0.00236	0.00252
Mean	35.21832	0.00115	0.02232	-0.00212	-0.00032	10.41551	-0.00241	-0.00625	0.00127
%RSD	0.05071	9.04519	5.96010	20.83089	103.24479	0.49897	152.25826	88.01043	139.88944

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	8.14353	0.00337	0.21159	-0.01431	-0.00107	-0.00668	-0.03924	-0.00064	0.02635
#2	8.16297	-0.00603	0.21272	-0.00982	-0.00131	0.00851	-0.04546	-0.00134	0.02635
Mean	8.15325	-0.00133	0.21215	-0.01207	-0.00119	0.00092	-0.04235	-0.00099	0.02635
%RSD	0.16854	498.54947	0.37946	26.32462	14.42111	1168.96364	10.37759	49.91681	0.00000

	Zr ppm	Pb calc	Se calc
#1	-0.00084	-0.00118	-0.00337
#2	-0.00103	-0.00066	0.00089
Mean	-0.00093	-0.00092	-0.00124
%RSD	13.79012	39.86794	243.81874

Method : Paragon File : 111117A Printed : 11/18/2011 12:18:47
SampleId1 : 1111185-7 SampleId2 : [SAMPLE]
Analysis commenced : 11/17/2011 15:36:06
Dilution ratio : 1.00000 to 1.00000 Tray : Position : TUBE20

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00100	0.00894	-0.00278	0.15531	0.20552	0.00032	-0.00720	64.65682	-0.00007
#2	-0.00041	0.00753	-0.00631	0.15873	0.20448	0.00030	-0.00244	64.48240	-0.00009
Mean	-0.00070	0.00824	-0.00455	0.15702	0.20500	0.00031	-0.00482	64.56961	-0.00008
%RSD	59.67697	12.09048	54.89003	1.54085	0.36101	4.02179	69.72585	0.19100	17.48343

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00027	-0.00163	-0.00179	0.80981	59.64806	0.00335	6.49302	0.50697	-0.00254
#2	0.00011	-0.00170	-0.00167	0.80635	59.50730	0.00338	6.48192	0.50559	-0.00291
Mean	-0.00008	-0.00166	-0.00173	0.80808	59.57768	0.00337	6.48747	0.50628	-0.00273
%RSD	334.99372	3.09676	4.57024	0.30294	0.16706	0.52485	0.12107	0.19168	9.53129

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	35.98722	0.00027	0.00821	-0.00617	0.00083	10.61085	-0.00474	-0.01122	0.00441
#2	35.90091	0.00129	0.00848	-0.00071	0.00018	10.56830	-0.00404	-0.00265	0.00531
Mean	35.94406	0.00078	0.00834	-0.00344	0.00050	10.58957	-0.00439	-0.00694	0.00486
%RSD	0.16979	93.08442	2.27731	112.18029	91.75879	0.28411	11.27676	87.31988	13.11376

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
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	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	8.17915	-0.00005	0.21579	-0.01246	-0.00266	0.00314	-0.04807	-0.00121	0.02665
#2	8.16000	-0.00304	0.21515	-0.01001	-0.00240	0.00060	-0.03742	-0.00154	0.02604
Mean	8.16958	-0.00155	0.21547	-0.01123	-0.00253	0.00187	-0.04274	-0.00138	0.02635
%RSD	0.16573	136.87788	0.21139	15.46722	7.41487	96.25345	17.62241	16.78605	1.62986

	Zr ppm	Pb calc	Se calc
#1	-0.00156	-0.00150	-0.00080
#2	-0.00128	-0.00012	0.00266
Mean	-0.00142	-0.00081	0.00093
%RSD	13.98158	120.59588	262.89704

Method : Paragon File : 111117A
SampleId1 : 1111185-8 SampleId2 :
Analysis commenced : 11/17/2011 15:37:54
Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/18/2011 12:18:48
[SAMPLE]

Position : TUBE21

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00075	0.08537	-0.00363	0.05211	0.20013	0.00027	-0.00223	67.14061	0.00024
#2	-0.00035	0.09060	0.00428	0.05139	0.20024	0.00026	-0.00655	67.17655	0.00023
Mean	-0.00055	0.08799	0.00032	0.05175	0.20019	0.00026	-0.00439	67.15858	0.00024
%RSD	51.09475	4.19905	1740.40839	0.98431	0.03697	2.27250	69.60601	0.03784	3.18746

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00020	-0.00130	-0.00204	0.00141	12.06083	-0.00079	14.91730	0.04060	-0.00126
#2	-0.00035	-0.00073	-0.00192	0.00141	12.10715	-0.00077	14.94752	0.04090	-0.00318
Mean	-0.00028	-0.00102	-0.00198	0.00141	12.08399	-0.00078	14.93241	0.04075	-0.00222
%RSD	38.89567	39.61570	4.21056	0.00000	0.27106	1.35640	0.14314	0.50869	61.42361

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	19.98947	-0.00120	-0.01087	-0.00435	-0.00012	6.49140	-0.00206	-0.00442	0.00124
#2	20.07478	0.00063	-0.01221	-0.00126	0.00083	6.46815	-0.00040	-0.00146	0.00444
Mean	20.03213	-0.00028	-0.01154	-0.00281	0.00035	6.47977	-0.00123	-0.00294	0.00284
%RSD	0.30114	457.37293	8.23169	78.05873	191.34186	0.25374	95.54078	71.14618	79.81421

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	3.26783	-0.00432	0.30448	-0.02332	-0.00245	-0.00689	-0.02888	-0.00021	-0.00037
#2	3.28334	-0.00219	0.30473	-0.01773	-0.00223	0.00390	-0.02622	-0.00076	-0.00128
Mean	3.27559	-0.00325	0.30460	-0.02053	-0.00234	-0.00150	-0.02755	-0.00048	-0.00083
%RSD	0.33486	46.41049	0.05917	19.25639	6.67485	509.74829	6.83360	81.53555	77.72193

	Zr ppm	Pb calc	Se calc
#1	-0.00156	-0.00150	-0.00080
#2	-0.00128	-0.00012	0.00266
Mean	-0.00142	-0.00081	0.00093
%RSD	13.98158	120.59588	262.89704

#1	0.00078	-0.00153	-0.00065	UNDRGREEN
#2	0.00046	0.00014	0.00248	
Mean	0.00062	-0.00070	0.00091	
%RSD	35.79037	169.11453	241.37993	

Method : Paragon File : 111117A Printed : 11/18/2011 12:18:48
 SampleId1 : CCV SampleId2 : [CV]
 Analysis commenced : 11/17/2011 15:40:24
 Dilution ratio : 1.00000 to 1.00000 Tray : Position : STD6

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	0.21299	50.65238	0.50205	0.99517	0.99223	0.47141	0.51651	49.26613	0.52245
#2	0.21182	50.38254	0.48979	0.98879	0.98760	0.46967	0.51885	49.10549	0.51823
Mean	0.21241	50.51746	0.49592	0.99198	0.98991	0.47054	0.51768	49.18581	0.52034
%RSD	0.38945	0.37770	1.74819	0.45527	0.33066	0.26203	0.32053	0.23094	0.57358

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.48834	0.98102	1.00352	19.99623	51.52069	0.53041	49.59740	0.95770	0.98235
#2	0.48674	0.97793	0.99730	19.93266	51.24646	0.52737	49.35041	0.95524	0.98327
Mean	0.48754	0.97947	1.00041	19.96444	51.38357	0.52889	49.47390	0.95647	0.98281
%RSD	0.23239	0.22256	0.43968	0.22518	0.37739	0.40611	0.35302	0.18173	0.06617

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	48.41538	0.96040	4.87301	0.96439	0.97295	5.12681	0.46815	1.00708	0.98698
#2	48.13531	0.95407	4.86185	0.96753	0.96947	5.06477	0.46257	1.01617	0.99352
Mean	48.27535	0.95723	4.86743	0.96596	0.97121	5.09579	0.46536	1.01162	0.99025
%RSD	0.41022	0.46756	0.16202	0.22954	0.25357	0.86099	0.84828	0.63552	0.46680

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	4.87702	0.97704	0.52310	0.30569	0.47204	0.49075	4.84766	0.48789	0.92222
#2	4.85138	0.98558	0.52048	0.30929	0.47095	0.48678	4.82999	0.48611	0.91493
Mean	4.86420	0.98131	0.52179	0.30749	0.47150	0.48877	4.83882	0.48700	0.91857
%RSD	0.37270	0.61488	0.35435	0.82917	0.16239	0.57460	0.25820	0.25846	0.56155

	Zr ppm	Pb calc	Se calc
#1	0.97230	0.97010	0.99367
#2	0.96708	0.96882	1.00106
Mean	0.96969	0.96946	0.99737
%RSD	0.38066	0.09327	0.52379

Method : Paragon File : 111117A Printed : 11/18/2011 12:18:48
 SampleId1 : CCB SampleId2 : [CB]
 Analysis commenced : 11/17/2011 15:42:19

Dilution ratio : 1.00000 to 1.00000 Tray :

Position : STD2

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00088	0.01326	-0.00023	-0.00147	-0.00083	-0.00003	0.00101	-0.03544	-0.00096
#2	-0.00029	0.01066	-0.00375	-0.00138	-0.00083	-0.00004	-0.00417	-0.03695	-0.00002
Mean	-0.00059	0.01196	-0.00199	-0.00142	-0.00083	-0.00004	-0.00158	-0.03619	-0.00049
%RSD	71.82394	15.33784	125.35190	4.47137	0.00000	2.42763	231.97800	2.94920	136.08922

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00109	-0.00143	-0.00192	-0.00164	-0.21833	-0.00277	-0.02787	-0.00073	-0.00171
#2	-0.00086	-0.00053	-0.00156	-0.00151	-0.22635	-0.00281	-0.03051	-0.00073	-0.00282
Mean	-0.00098	-0.00098	-0.00174	-0.00157	-0.22234	-0.00279	-0.02919	-0.00073	-0.00227
%RSD	16.54583	65.03141	14.37104	5.95663	2.55213	1.01218	6.39427	0.00000	34.38797

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	0.13361	-0.00208	-0.01248	-0.00186	0.00029	-0.03315	-0.00122	-0.00271	0.00074
#2	0.13272	-0.00248	-0.00926	-0.00251	0.00302	-0.01760	0.00143	-0.00255	0.00284
Mean	0.13316	-0.00228	-0.01087	-0.00219	0.00166	-0.02537	0.00010	-0.00263	0.00179
%RSD	0.47540	12.49908	20.97712	21.00275	116.86955	43.33131	1826.03634	4.37232	83.21078

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	-0.01753	-0.00347	-0.00320	-0.00700	-0.00210	0.00180	-0.03598	-0.00002	-0.00280
#2	-0.01638	-0.00133	-0.00320	-0.00754	-0.00230	0.00296	-0.02710	-0.00058	-0.00219
Mean	-0.01695	-0.00240	-0.00320	-0.00727	-0.00220	0.00238	-0.03154	-0.00030	-0.00250
%RSD	4.79689	62.94528	0.00000	5.32923	6.40006	34.65184	19.89578	132.17830	17.18493

	Zr ppm	Pb calc	Se calc
#1	0.00071	-0.00043	-0.00041
#2	0.00089	0.00118	0.00104
Mean	0.00080	0.00038	0.00032
%RSD	15.36049	303.11003	326.37472

Method : Paragon

File : 111117A

Printed : 11/18/2011 12:18:48

SampleId1 : 1111185-9

SampleId2 :

[SAMPLE]

Analysis commenced : 11/17/2011 15:44:13

Dilution ratio : 1.00000 to 1.00000 Tray :

Position : TUBE22

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00149	0.02620	0.00196	0.05085	0.20333	-0.00017	0.00144	70.39964	0.00046
#2	-0.00068	0.04263	-0.00485	0.05337	0.20448	-0.00006	0.00144	70.19307	0.00071

Mean	-0.00109	0.03441	-0.00144	0.05211	0.20390	-0.00012	0.00144	70.29636	0.00059
%RSD	52.39335	33.76518	333.90609	3.42127	0.39925	66.65309	0.02725	0.20779	29.26722
	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm								
#1	-0.00065	-0.00123	-0.00131	0.00698	11.93791	-0.00088	15.75315	0.01960	-0.00236
#2	-0.00080	-0.00133	-0.00107	0.01229	11.95761	-0.00077	15.73088	0.01989	-0.00236
Mean	-0.00073	-0.00128	-0.00119	0.00963	11.94776	-0.00083	15.74201	0.01974	-0.00236
%RSD	14.61802	5.45324	14.50513	38.94426	0.11657	8.97813	0.10007	1.04983	0.00000
	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	ppm								
#1	20.47721	-0.00215	-0.00953	-0.00071	0.00212	6.53015	-0.00221	-0.00739	0.00605
#2	20.53537	-0.00178	-0.01490	-0.00440	0.00021	6.54565	-0.00362	-0.00475	0.00314
Mean	20.50629	-0.00197	-0.01221	-0.00256	0.00117	6.53790	-0.00292	-0.00607	0.00459
%RSD	0.20056	13.16037	31.11561	101.89748	116.22895	0.16765	34.04739	30.77746	44.68856
	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm								
#1	3.21044	-0.00261	0.31548	-0.02865	-0.00255	0.00783	-0.04308	-0.00058	0.00114
#2	3.22114	-0.00347	0.31605	-0.03247	-0.00257	-0.00006	-0.04753	-0.00095	0.00054
Mean	3.21579	-0.00304	0.31577	-0.03056	-0.00256	0.00389	-0.04531	-0.00076	0.00084
%RSD	0.23522	19.87188	0.12761	8.83890	0.60991	143.50321	6.93147	34.45532	51.04307
	Zr	Pb	Se						
	ppm	calc	calc						
#1	0.00317	0.00118	0.00157						
#2	0.00321	-0.00133	0.00052						
Mean	0.00319	-0.00007	0.00104						
%RSD	0.90446	2417.35728	71.61327						

Method : Paragon File : 111117A
SampleId1 : 1111185-10 SampleId2 :
Analysis commenced : 11/17/2011 15:46:02
Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/18/2011 12:18:48
[SAMPLE]

Position : TUBE23

Final concentrations

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00069	-0.02877	0.00367	0.02068	0.15509	-0.00021	-0.00741	106.58416	0.00039
#2	-0.00042	-0.03067	0.00257	0.02059	0.15519	-0.00022	-0.00115	106.32011	0.00022
Mean	-0.00055	-0.02972	0.00312	0.02064	0.15514	-0.00022	-0.00428	106.45214	0.00030
%RSD	34.57854	4.53849	24.81915	0.30853	0.04769	0.67194	103.48188	0.17540	38.68973
	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00118	-0.00134	-0.00132	0.00048	3.13203	-0.00263	14.97404	0.00680	-0.00263
#2	-0.00004	-0.00093	-0.00132	0.00088	3.12583	-0.00264	14.87911	0.00660	-0.00456
Mean	-0.00061	-0.00113	-0.00132	0.00068	3.12893	-0.00263	14.92658	0.00670	-0.00360

%RSD	133.16664	25.42228	0.29585	41.35835	0.14014	0.26841	0.44968	2.06228	37.90470
	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	16.21255	-0.00230	-0.01598	-0.00046	0.00211	4.91740	-0.00474	-0.00131	0.00554
#2	16.14561	-0.00164	-0.01275	-0.00047	-0.00214	4.88249	0.00015	-0.00909	0.00144
Mean	16.17908	-0.00197	-0.01436	-0.00046	-0.00002	4.89995	-0.00230	-0.00520	0.00349
%RSD	0.29256	23.68866	15.87500	0.53010	16198.68167	0.50371	150.83854	105.86304	83.18775
	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	1.75886	-0.00389	0.82934	-0.03049	-0.00261	-0.00052	-0.02888	-0.00067	0.00479
#2	1.75389	-0.00219	0.82697	-0.03412	-0.00256	0.01026	-0.03598	-0.00044	0.00600
Mean	1.75638	-0.00304	0.82816	-0.03231	-0.00258	0.00487	-0.03243	-0.00055	0.00540
%RSD	0.20006	39.74408	0.20207	7.94607	1.20939	156.44464	15.48106	29.69555	15.91635
	Zr	Pb	Se						
	ppm	calc	calc						
#1	0.00117	0.00125	0.00326						
#2	0.00158	-0.00158	-0.00207						
Mean	0.00138	-0.00017	0.00060						
%RSD	20.72799	1202.29493	632.05920						

Method : Paragon File : 111117A
SampleId1 : 1111185-11 SampleId2 :
Analysis commenced : 11/17/2011 15:47:52
Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/18/2011 12:18:49
[SAMPLE]

Position : TUBE24

Final concentrations

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00114	-0.04423	0.00318	0.01960	0.22939	-0.00019	0.00165	123.21118	0.00002
#2	-0.00083	-0.03995	-0.00023	0.01987	0.22798	-0.00022	0.00123	122.51304	0.00026
Mean	-0.00098	-0.04209	0.00148	0.01974	0.22868	-0.00020	0.00144	122.86211	0.00014
%RSD	22.52488	7.18438	163.07347	0.96781	0.43696	8.00185	20.74384	0.40180	120.30402
	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00077	-0.00089	-0.00178	0.04850	4.07530	-0.00251	18.07620	-0.00024	-0.00171
#2	-0.00024	-0.00006	-0.00145	0.04824	4.04357	-0.00249	17.93926	-0.00024	-0.00291
Mean	-0.00050	-0.00048	-0.00162	0.04837	4.05943	-0.00250	18.00773	-0.00024	-0.00231
%RSD	74.60263	122.67769	14.74632	0.38789	0.55277	0.56582	0.53774	0.00000	36.51374
	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	33.07477	-0.00391	-0.01893	-0.00503	0.00075	4.97557	-0.00305	-0.00553	0.00115
#2	32.72993	-0.00318	-0.01006	0.00028	0.00040	5.01435	0.00100	-0.00084	0.00125
Mean	32.90235	-0.00354	-0.01450	-0.00237	0.00058	4.99496	-0.00103	-0.00319	0.00120
%RSD	0.74111	14.62024	43.25171	158.35808	42.59799	0.54901	279.25562	104.13738	5.88906

ted: 11/18/2011 12:19:02 User: MIKE LUNDGREEN

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	2.19185	-0.00304	0.93433	-0.03050	-0.00249	0.00274	-0.05110	-0.00052	0.00266
#2	2.17585	-0.00347	0.92751	-0.03103	-0.00262	0.00554	-0.02093	-0.00080	0.00388
Mean	2.18385	-0.00325	0.93092	-0.03076	-0.00255	0.00414	-0.03601	-0.00066	0.00327
%RSD	0.51796	9.28056	0.51808	1.20248	3.67532	47.88725	59.24761	29.85946	26.26061

	Zr ppm	Pb calc	Se calc
#1	0.00113	-0.00117	-0.00108
#2	0.00101	0.00036	0.00055
Mean	0.00107	-0.00040	-0.00026
%RSD	7.85666	268.88204	438.16642

Method : Paragon File : 111117A
 SampleId1 : 111185-12 SampleId2 :
 Analysis commenced : 11/17/2011 15:49:42
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/18/2011 12:18:49
 [SAMPLE]

Position : TUBE25

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00115	0.01537	0.00549	0.01978	0.03973	-0.00014	-0.00741	27.06230	-0.00026
#2	-0.00060	0.02062	-0.00059	0.01897	0.03967	-0.00014	0.00382	27.05515	0.00018
Mean	-0.00087	0.01800	0.00245	0.01938	0.03970	-0.00014	-0.00180	27.05872	-0.00004
%RSD	44.05379	20.62581	175.53827	2.95739	0.09311	0.25255	441.64931	0.01869	783.08079

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00058	-0.00126	-0.00131	0.03218	3.32535	-0.00278	3.24418	0.00680	0.00168
#2	-0.00119	-0.00082	-0.00118	0.03165	3.32317	-0.00280	3.24471	0.00689	0.00288
Mean	-0.00088	-0.00104	-0.00125	0.03192	3.32426	-0.00279	3.24444	0.00685	0.00228
%RSD	48.72873	30.29274	7.52343	1.17552	0.04655	0.63318	0.01152	1.00907	37.02897

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	3.94270	-0.00116	0.01627	0.00047	-0.00263	3.52464	-0.00007	0.00024	0.00475
#2	3.95309	-0.00157	0.01547	-0.00376	0.00168	3.51300	0.00050	-0.00289	0.00345
Mean	3.94789	-0.00136	0.01587	-0.00164	-0.00048	3.51882	0.00021	-0.00133	0.00410
%RSD	0.18611	20.89220	3.59246	182.11583	641.00556	0.23396	189.21312	166.49503	22.46514

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	1.32495	-0.00219	0.11510	-0.01360	-0.00179	0.00018	-0.04044	0.00245	0.00175
#2	1.32805	0.00166	0.11553	-0.01743	-0.00179	0.00980	-0.05641	0.00292	0.00054
Mean	1.32650	-0.00026	0.11532	-0.01552	-0.00179	0.00499	-0.04843	0.00269	0.00114
%RSD	0.16518	1028.81241	0.26612	17.43536	0.00000	136.23857	23.32540	12.24787	75.01211

	Zr ppm	Pb calc	SeUNDGREEN calc
#1	0.00070	-0.00160	0.00325
#2	0.00096	-0.00013	0.00134
Mean	0.00083	-0.00086	0.00229
%RSD	22.05541	120.23647	58.90547

Method : Paragon File : 111117A Printed : 11/18/2011 12:18:49
SampleId1 : 1111185-12D SampleId2 : [SAMPLE]
Analysis commenced : 11/17/2011 15:51:31
Dilution ratio : 1.00000 to 1.00000 Tray : Position : TUBE26

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00081	0.01145	-0.00388	0.01897	0.04035	0.00000	-0.00223	27.70583	0.00029
#2	-0.00028	0.01700	-0.00181	0.01978	0.04067	-0.00002	0.00101	27.73104	0.00032
Mean	-0.00055	0.01423	-0.00284	0.01938	0.04051	-0.00001	-0.00061	27.71843	0.00030
%RSD	69.81647	27.59564	51.46181	2.95739	0.54747	122.71343	377.74034	0.06429	6.87695

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00050	-0.00106	-0.00119	0.03431	3.39028	-0.00274	3.31605	0.00709	0.00352
#2	0.00034	-0.00066	-0.00071	0.03643	3.39502	-0.00276	3.31024	0.00719	0.00233
Mean	-0.00008	-0.00086	-0.00095	0.03537	3.39265	-0.00275	3.31314	0.00714	0.00292
%RSD	708.29592	33.42663	36.01454	4.24360	0.09883	0.51438	0.12406	0.96764	28.88433

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	3.99928	-0.00182	0.03240	-0.00272	-0.00099	3.59061	-0.00217	-0.00303	0.00565
#2	4.00323	-0.00105	0.02756	-0.00270	-0.00190	3.56733	-0.00021	-0.00646	0.00134
Mean	4.00125	-0.00144	0.02998	-0.00271	-0.00144	3.57897	-0.00119	-0.00474	0.00350
%RSD	0.06971	37.85171	11.41045	0.53174	44.59216	0.46003	116.09459	51.08957	87.06109

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	1.35346	-0.00304	0.11742	-0.01355	-0.00173	0.00146	-0.03778	0.00227	0.00023
#2	1.36151	0.00080	0.11742	-0.01591	-0.00162	0.00378	-0.04310	0.00311	-0.00037
Mean	1.35748	-0.00112	0.11742	-0.01473	-0.00168	0.00262	-0.04044	0.00269	-0.00007
%RSD	0.41895	242.99575	0.00000	11.33352	4.65594	62.53580	9.31302	22.05638	616.56253

	Zr ppm	Pb calc	Se calc
#1	0.00085	-0.00157	0.00276
#2	0.00073	-0.00217	-0.00125
Mean	0.00079	-0.00187	0.00075
%RSD	10.17562	22.76319	376.82913

Method : Paragon File : 111117A Printed : 11/18/2011 12:18:49

SampleId1 : 1111185-12L 5X SampleId2 :
 Analysis commenced : 11/17/2011 15:53:20
 Dilution ratio : 1.00000 to 1.00000 Tray :

[SAMPLE]

Position : TUBE27

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00028	-0.01063	0.00014	0.00078	0.00721	-0.00005	-0.00136	5.53832	0.00043
#2	-0.00054	-0.01384	0.00634	0.00186	0.00727	-0.00004	0.00446	5.54956	-0.00011
Mean	-0.00041	-0.01224	0.00324	0.00132	0.00724	-0.00004	0.00155	5.54394	0.00016
%RSD	44.20999	18.51390	135.36356	57.77836	0.51037	19.56946	265.62899	0.14337	236.76022

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00116	-0.00137	-0.00120	-0.00668	0.40104	-0.00295	0.61255	0.00054	-0.00171
#2	-0.00085	-0.00163	-0.00179	-0.00681	0.39448	-0.00299	0.61889	0.00064	-0.00217
Mean	-0.00100	-0.00150	-0.00149	-0.00675	0.39776	-0.00297	0.61572	0.00059	-0.00194
%RSD	21.46621	12.37702	27.99304	1.38998	1.16721	0.95254	0.72766	11.63590	16.69663

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	0.82880	-0.00160	-0.00227	0.00088	-0.00054	0.68976	-0.00108	-0.00956	-0.00017
#2	0.83374	-0.00072	-0.00523	0.00148	0.00080	0.70142	-0.00122	-0.00988	-0.00277
Mean	0.83127	-0.00116	-0.00375	0.00118	0.00013	0.69559	-0.00115	-0.00972	-0.00147
%RSD	0.42013	53.48418	55.75878	35.90140	737.46712	1.18508	8.68325	2.33744	125.35915

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	0.25520	-0.00133	0.02077	-0.01104	-0.00221	-0.00679	-0.03331	-0.00035	-0.00341
#2	0.25580	-0.00518	0.02086	-0.00934	-0.00236	0.01025	-0.04574	-0.00007	-0.00068
Mean	0.25550	-0.00325	0.02082	-0.01019	-0.00229	0.00173	-0.03953	-0.00021	-0.00204
%RSD	0.16636	83.54333	0.30467	11.80618	4.78532	695.22904	22.22788	95.52864	94.56986

	Zr ppm	Pb calc	Se calc
#1	0.00054	-0.00007	-0.00329
#2	0.00007	0.00103	-0.00514
Mean	0.00030	0.00048	-0.00422
%RSD	108.56754	161.10928	30.92711

Method : Paragon File : 111117A
 SampleId1 : 1111185-12MS SampleId2 :
 Analysis commenced : 11/17/2011 15:55:09
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/18/2011 12:18:50

[SAMPLE]

Position : TUBE28

Final concentrations

Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
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#1	0.09745	2.11487	1.97271	0.52458	2.01622	0.04980	-0.00109	66.97225	0.05127
#2	0.09739	2.11426	1.98525	0.52197	2.01569	0.04964	-0.00218	66.82010	0.05178
Mean	0.09742	2.11457	1.97898	0.52327	2.01596	0.04972	-0.00163	66.89617	0.05153
%RSD	0.04618	0.02041	0.44804	0.35271	0.01857	0.23334	46.79546	0.16083	0.68873

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.49189	0.19723	0.24752	1.04736	43.10052	0.51795	41.58386	0.49716	0.99781
#2	0.49174	0.19575	0.24680	1.04603	43.13189	0.51808	41.51544	0.49569	0.99413
Mean	0.49181	0.19649	0.24716	1.04669	43.11621	0.51801	41.54965	0.49643	0.99597
%RSD	0.02208	0.53166	0.20550	0.09005	0.05144	0.01751	0.11644	0.20943	0.26119

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	42.01415	0.47725	0.02084	0.48997	0.49264	3.61390	0.46304	2.10002	2.04924
#2	41.99792	0.47574	0.02810	0.49184	0.49039	3.61390	0.45487	2.09818	2.05847
Mean	42.00604	0.47650	0.02447	0.49090	0.49151	3.61390	0.45896	2.09910	2.05385
%RSD	0.02732	0.22273	20.96912	0.26915	0.32265	0.00000	1.25847	0.06180	0.31769

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	3.41486	0.49139	0.64252	-0.04518	0.47795	1.96381	-0.04113	0.50268	0.48525
#2	3.40445	0.49395	0.64168	-0.04611	0.47826	1.96749	-0.04379	0.50082	0.48586
Mean	3.40965	0.49267	0.64210	-0.04564	0.47810	1.96565	-0.04246	0.50175	0.48555
%RSD	0.21590	0.36759	0.09279	1.44019	0.04576	0.13240	4.43229	0.26227	0.08848

	Zr ppm	Pb calc	Se calc
#1	0.00322	0.49175	2.06615
#2	0.00288	0.49087	2.07169
Mean	0.00305	0.49131	2.06892
%RSD	7.92051	0.12575	0.18948

Method : Paragon

File : 111117A

Printed : 11/18/2011 12:18:50

SampleId1 : 1111185-12MSD

SampleId2 :

[SAMPLE]

Analysis commenced : 11/17/2011 15:56:57

Dilution ratio : 1.00000 to 1.00000 Tray :

Position : TUBE29

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	0.09739	2.12177	1.98983	0.52386	2.01930	0.04983	-0.00260	67.07197	0.05238
#2	0.09787	2.13909	1.99441	0.52413	2.03227	0.04994	-0.00800	67.17137	0.05139
Mean	0.09763	2.13043	1.99212	0.52399	2.02578	0.04988	-0.00530	67.12167	0.05188
%RSD	0.34750	0.57480	0.16262	0.03644	0.45291	0.15701	71.94967	0.10472	1.34825

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.49258	0.19629	0.24739	1.04270	43.13444	0.51805	41.48925	0.49707	0.99670

#2	0.49450	0.19643	0.24921	1.04629	43.45938	0.52187	41.65710	0.49863	0.99928
Mean	0.49354	0.19636	0.24830	1.04449	43.29691	0.51996	41.57317	0.49785	0.99799
%RSD	0.27466	0.05114	0.51601	0.24366	0.53068	0.51849	0.28548	0.22276	0.18246

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	42.00377	0.48142	0.01950	0.49122	0.48929	3.64494	0.46093	2.09513	2.06019
#2	42.29420	0.48369	0.02004	0.48946	0.49100	3.67599	0.46517	2.10581	2.05603
Mean	42.14899	0.48255	0.01977	0.49034	0.49015	3.66046	0.46305	2.10047	2.05811
%RSD	0.48724	0.33258	1.92283	0.25310	0.24676	0.59970	0.64704	0.35945	0.14282

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	3.41368	0.49864	0.64440	-0.04781	0.47845	1.98302	-0.03935	0.50371	0.48403
#2	3.42528	0.49779	0.64852	-0.04307	0.48017	1.99371	-0.05355	0.50306	0.48312
Mean	3.41948	0.49821	0.64646	-0.04544	0.47931	1.98837	-0.04645	0.50338	0.48358
%RSD	0.23991	0.12147	0.45095	7.38386	0.25428	0.38026	21.61851	0.09139	0.13327

	Zr ppm	Pb calc	Se calc
#1	0.00209	0.48993	2.07183
#2	0.00152	0.49049	2.07261
Mean	0.00180	0.49021	2.07222
%RSD	22.32744	0.08026	0.02672

Method : Paragon

File : 111117A

Printed : 11/18/2011 12:18:50

SampleId1 : 1111185-14

SampleId2 :

[SAMPLE]

Analysis commenced : 11/17/2011 15:58:46

Dilution ratio : 1.00000 to 1.00000 Tray :

Position : TUBE30

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00088	0.03453	-0.00108	0.01915	0.04077	0.00021	-0.00309	27.99399	0.00003
#2	-0.00035	0.04028	-0.00497	0.01978	0.04129	0.00021	-0.00697	27.90903	0.00010
Mean	-0.00062	0.03740	-0.00302	0.01947	0.04103	0.00021	-0.00503	27.95151	0.00006
%RSD	60.80145	10.86428	91.02399	2.28955	0.90084	0.17904	54.60838	0.21494	77.96965

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00126	-0.00083	-0.00156	0.03789	3.39612	-0.00268	3.31394	0.00729	0.00352
#2	0.00011	-0.00077	-0.00120	0.03855	3.40487	-0.00255	3.32820	0.00758	0.00214
Mean	-0.00058	-0.00080	-0.00138	0.03822	3.40049	-0.00261	3.32107	0.00743	0.00283
%RSD	167.63179	5.86810	18.37329	1.22718	0.18204	3.51607	0.30379	2.78846	34.40928

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	4.00869	-0.00036	0.03428	-0.00722	0.00276	3.59449	-0.00343	-0.00847	0.00986
#2	3.99503	-0.00105	0.02568	0.00006	0.00134	3.56345	-0.00148	0.00273	0.00425

	Mean	4.00186	-0.00070	0.02998	-0.00358	0.00205	3.57897	-0.00246	-0.00287	0.00705
	%RSD	0.24128	69.86468	20.28524	143.79349	49.07926	0.61338	56.29305	276.29911	56.22756
		Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1		1.36661	-0.00432	0.11830	-0.01207	-0.00161	0.00506	-0.02891	0.00222	0.00175
#2		1.36177	0.00123	0.11811	-0.01120	-0.00137	0.00750	-0.02713	0.00343	0.00054
Mean		1.36419	-0.00155	0.11821	-0.01163	-0.00149	0.00628	-0.02802	0.00283	0.00114
%RSD		0.25048	253.96331	0.11638	5.24126	11.53415	27.42402	4.47837	30.26796	75.01211
		Zr	Pb	Se						
		ppm	calc	calc						
#1		-0.00019	-0.00057	0.00376						
#2		0.00026	0.00091	0.00375						
Mean		0.00003	0.00017	0.00375						
%RSD		934.26360	604.73008	0.19410						

Method : Paragon

File : 111117A

Printed : 11/18/2011 12:18:50

SampleId1 : 1111185-15

SampleId2 :

[SAMPLE]

Analysis commenced : 11/17/2011 16:00:36

Dilution ratio : 1.00000 to 1.00000 Tray :

Position : TUBE31

Final concentrations

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	ppm								
#1	-0.00067	-0.01510	0.00050	0.01861	0.04067	0.00005	0.00274	28.72101	0.00015
#2	-0.00057	-0.01508	-0.00096	0.01834	0.04051	0.00001	-0.00244	28.48401	0.00042
Mean	-0.00062	-0.01509	-0.00023	0.01848	0.04059	0.00003	0.00015	28.60251	0.00028
%RSD	11.77886	0.12185	456.48059	1.03384	0.27321	104.81496	2442.69697	0.58591	67.54096
	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm								
#1	-0.00050	-0.00149	-0.00179	-0.01398	3.37350	-0.00276	3.42385	-0.00102	0.00288
#2	-0.00088	-0.00115	-0.00158	-0.01358	3.35855	-0.00272	3.39585	-0.00092	0.00288
Mean	-0.00069	-0.00132	-0.00168	-0.01378	3.36602	-0.00274	3.40985	-0.00097	0.00288
%RSD	38.89096	18.61590	8.73640	2.04220	0.31417	1.03251	0.58082	7.12588	0.00000
	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	ppm								
#1	4.10582	-0.00160	0.02487	-0.00361	0.00039	3.61390	-0.00076	-0.00210	0.00614
#2	4.08077	-0.00164	0.01385	-0.00067	-0.00079	3.55569	-0.00231	0.00182	0.00764
Mean	4.09329	-0.00162	0.01936	-0.00214	-0.00020	3.58479	-0.00154	-0.00014	0.00689
%RSD	0.43264	1.59870	40.23856	97.10770	419.56703	1.14821	71.30445	2012.04468	15.40695
	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm								
#1	1.36459	-0.00347	0.12103	-0.01472	-0.00213	-0.00216	-0.04840	0.00249	-0.00159
#2	1.35707	-0.00945	0.11977	-0.01788	-0.00245	0.00308	-0.00668	0.00254	-0.00037
Mean	1.36083	-0.00646	0.12040	-0.01630	-0.00229	0.00046	-0.02754	0.00251	-0.00098

%RSD	0.39064	65.48116	0.73834	13.69504	9.88856	806.62062	107.09881	1.31090	87.58443
	Zr	Pb	Se						
	ppm	calc	calc						
#1	0.00019	-0.00094	0.00340						
#2	0.00052	-0.00075	0.00571						
Mean	0.00036	-0.00084	0.00455						
%RSD	64.87959	15.82497	35.85843						

Method : Paragon File : 111117A
SampleId1 : CCV SampleId2 :
Analysis commenced : 11/17/2011 16:03:07
Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/18/2011 12:18:50
[CV]

Position : STD6

Final concentrations

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	0.21315	50.95182	0.49829	0.99472	0.99496	0.47928	0.51308	49.56998	0.51631
#2	0.21250	50.75410	0.49356	0.99148	0.99228	0.47804	0.51608	49.39848	0.51328
Mean	0.21282	50.85296	0.49592	0.99310	0.99362	0.47866	0.51458	49.48423	0.51480
%RSD	0.21791	0.27493	0.67504	0.23058	0.19092	0.18324	0.41274	0.24508	0.41573

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	0.49342	0.99558	0.99965	20.26157	51.34419	0.53206	50.12627	0.97363	0.99468
#2	0.49281	0.99266	0.99618	20.19300	51.08527	0.52965	50.00517	0.97166	0.98245
Mean	0.49312	0.99412	0.99791	20.22729	51.21473	0.53086	50.06572	0.97265	0.98856
%RSD	0.08746	0.20784	0.24612	0.23972	0.35748	0.32117	0.17105	0.14298	0.87495

	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	48.56633	0.95121	4.91980	0.98223	0.98676	5.22376	0.46276	1.01711	1.01706
#2	48.32057	0.94755	4.94075	0.98079	0.97965	5.19274	0.46480	1.01927	1.01019
Mean	48.44345	0.94938	4.93027	0.98151	0.98320	5.20825	0.46378	1.01819	1.01363
%RSD	0.35872	0.27250	0.30046	0.10416	0.51172	0.42118	0.31024	0.15025	0.47903

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm								
#1	4.95884	0.98471	0.52254	0.31628	0.48152	0.49217	4.89441	0.49185	0.94654
#2	4.94501	0.98684	0.52077	0.31178	0.48028	0.48542	4.89003	0.49118	0.94806
Mean	4.95193	0.98578	0.52165	0.31403	0.48090	0.48879	4.89222	0.49151	0.94730
%RSD	0.19750	0.15310	0.24037	1.01473	0.18196	0.97571	0.06332	0.09561	0.11345

	Zr	Pb	Se
	ppm	calc	calc
#1	0.97448	0.98525	1.01708
#2	0.97213	0.98003	1.01322
Mean	0.97331	0.98264	1.01515
%RSD	0.17085	0.37615	0.26885

ted: 11/18/2011 12:19:03 User: MIKE LUNDGREEN
 Method : Paragon File : 111117A
 SampleId1 : CCB SampleId2 :
 Analysis commenced : 11/17/2011 16:05:02
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/18/2011 12:18:51
 [CB]

Position : STD2

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00068	0.00815	-0.00083	-0.00237	-0.00073	0.00007	-0.00504	-0.02578	0.00072
#2	-0.00062	0.01131	0.00476	-0.00156	-0.00078	0.00006	-0.00093	-0.02880	0.00042
Mean	-0.00065	0.00973	0.00196	-0.00196	-0.00076	0.00006	-0.00298	-0.02729	0.00057
%RSD	6.48755	22.94457	201.51625	29.17365	4.89397	15.46602	97.38923	7.82371	36.92430

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00086	-0.00110	-0.00192	0.00035	-0.24313	-0.00281	-0.01784	-0.00043	-0.00070
#2	-0.00025	-0.00077	-0.00156	-0.00071	-0.23803	-0.00283	-0.02470	-0.00063	-0.00089
Mean	-0.00056	-0.00093	-0.00174	-0.00018	-0.24058	-0.00282	-0.02127	-0.00053	-0.00080
%RSD	76.97069	25.06607	14.30363	412.64828	1.50096	0.62645	22.81436	26.07780	16.30197

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	0.13719	-0.00307	-0.00657	-0.00489	-0.00099	-0.01371	-0.00304	-0.00271	0.00464
#2	0.13540	-0.00142	-0.01383	-0.00229	0.00060	-0.02537	0.00032	-0.00333	0.00474
Mean	0.13630	-0.00224	-0.01020	-0.00359	-0.00020	-0.01954	-0.00136	-0.00302	0.00469
%RSD	0.92894	51.96766	50.30792	51.10256	567.57543	42.19469	174.97957	14.36937	1.50376

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	-0.01592	-0.00219	-0.00310	-0.01159	-0.00226	-0.00075	-0.03509	-0.00090	-0.00280
#2	-0.01623	-0.00560	-0.00313	-0.00812	-0.00208	0.00389	-0.02444	-0.00137	-0.00219
Mean	-0.01608	-0.00390	-0.00311	-0.00986	-0.00217	0.00157	-0.02977	-0.00114	-0.00250
%RSD	1.35898	62.04784	0.67886	24.89322	6.12145	209.44627	25.29975	28.97660	17.18493

	Zr ppm	Pb calc	Se calc
#1	0.00105	-0.00229	0.00219
#2	0.00089	-0.00037	0.00206
Mean	0.00097	-0.00133	0.00212
%RSD	11.58858	102.52945	4.58672

Method : Paragon File : 111117A
 SampleId1 : 1111185-16 SampleId2 :
 Analysis commenced : 11/17/2011 16:06:56
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/18/2011 12:18:51
 [SAMPLE]

Position : TUBE32

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00162	-0.01088	0.00063	0.02014	0.08918	0.00030	-0.00331	28.24769	0.00047
#2	-0.00042	-0.01349	0.00282	0.02357	0.08882	0.00029	-0.00547	28.09173	0.00046
Mean	-0.00102	-0.01219	0.00172	0.02186	0.08900	0.00030	-0.00439	28.16971	0.00047
%RSD	82.65723	15.16009	90.00600	11.07181	0.29081	1.48722	34.71298	0.39148	2.27511
	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00104	-0.00163	-0.00251	-0.00085	3.59819	-0.00269	5.15239	0.01647	0.00012
#2	-0.00020	-0.00096	-0.00156	-0.00058	3.57522	-0.00270	5.11644	0.01608	-0.00061
Mean	-0.00062	-0.00130	-0.00203	-0.00071	3.58671	-0.00270	5.13441	0.01627	-0.00025
%RSD	94.93684	36.37381	33.15679	26.33114	0.45304	0.39329	0.49516	1.69806	211.46310
	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	4.36644	-0.00124	-0.01490	-0.00683	0.00235	4.90576	-0.00359	-0.01081	0.00905
#2	4.34570	-0.00146	-0.01087	0.00103	0.00129	4.85922	0.00145	0.00040	0.00885
Mean	4.35607	-0.00135	-0.01289	-0.00290	0.00182	4.88249	-0.00107	-0.00521	0.00895
%RSD	0.33669	11.55087	22.11995	191.56689	41.21521	0.67402	333.02109	152.30336	1.58351
	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	1.65317	-0.00304	0.11760	-0.01599	-0.00235	0.00330	-0.04219	-0.00104	0.00175
#2	1.64599	-0.01030	0.11705	-0.02082	-0.00235	0.00644	-0.03332	-0.00025	0.00114
Mean	1.64958	-0.00667	0.11732	-0.01841	-0.00235	0.00487	-0.03775	-0.00065	0.00145
%RSD	0.30783	76.97274	0.33373	18.55399	0.00000	45.52215	16.62154	86.38883	29.64420
	Zr ppm	Pb calc	Se calc						
#1	0.00225	-0.00071	0.00244						
#2	0.00276	0.00120	0.00604						
Mean	0.00250	0.00025	0.00424						
%RSD	14.43260	544.43287	60.08197						

Method : Paragon File : 111117A
SampleId1 : 1111185-17 SampleId2 :
Analysis commenced : 11/17/2011 16:08:45
Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/18/2011 12:18:51
[SAMPLE]
Position : TUBE33

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00049	-0.00878	-0.00400	0.02068	0.08772	0.00023	0.00209	27.67161	0.00037
#2	-0.00036	-0.00160	-0.00217	0.01978	0.08798	0.00023	0.00015	27.60814	0.00065
Mean	-0.00043	-0.00519	-0.00309	0.02023	0.08785	0.00023	0.00112	27.63987	0.00051
%RSD	21.08681	97.70206	41.82632	3.14705	0.21044	1.16737	122.00185	0.16237	37.47568
	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo

	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00066	-0.00083	-0.00156	-0.01305	3.54129	-0.00281	5.06938	-0.00004	-0.00199
#2	-0.00089	-0.00121	-0.00121	-0.01305	3.56062	-0.00283	5.07678	-0.00014	-0.00116
Mean	-0.00078	-0.00102	-0.00139	-0.01305	3.55096	-0.00282	5.07308	-0.00009	-0.00158
%RSD	20.75588	26.05238	17.92670	0.00000	0.38497	0.37587	0.10318	76.60577	37.05337

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	4.34076	-0.00072	-0.00953	0.00232	-0.00201	4.88249	0.00060	-0.00302	0.00574
#2	4.36986	-0.00087	-0.00872	-0.00010	0.00141	4.80492	0.00061	0.00213	0.00133
Mean	4.35531	-0.00080	-0.00912	0.00111	-0.00030	4.84371	0.00060	-0.00044	0.00354
%RSD	0.47244	13.01619	6.24836	154.58937	811.48397	1.13238	1.28395	817.60951	88.09238

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	1.61629	-0.00603	0.11580	-0.01579	-0.00219	0.00168	-0.02798	0.00002	-0.00007
#2	1.62139	-0.00347	0.11597	-0.01326	-0.00207	0.00447	-0.01645	-0.00016	0.00023
Mean	1.61884	-0.00475	0.11589	-0.01453	-0.00213	0.00307	-0.02222	-0.00007	0.00008
%RSD	0.22292	38.15933	0.10045	12.31607	4.04330	64.17636	36.72328	192.79726	261.28252

	Zr ppm	Pb calc	Se calc
#1	0.00139	-0.00057	0.00283
#2	0.00100	0.00091	0.00160
Mean	0.00119	0.00017	0.00221
%RSD	23.38431	610.03350	39.22532

Method : Paragon File : 111117A
SampleId1 : 1111185-18 SampleId2 :
Analysis commenced : 11/17/2011 16:10:33
Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/18/2011 12:18:51
[SAMPLE]
Position : TUBE34

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00062	0.18154	0.00306	0.03852	3.28021	0.00000	-0.00091	438.14949	0.00000
#2	-0.00075	0.18694	0.00586	0.03752	3.27711	0.00002	-0.00631	435.86372	0.00011
Mean	-0.00069	0.18424	0.00446	0.03802	3.27866	0.00001	-0.00361	437.00660	0.00006
%RSD	13.14968	2.07129	44.38535	1.84232	0.06678	152.48884	105.91069	0.36985	140.86450

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.00114	0.00079	0.00637	0.58265	20.00410	0.30773	89.08460	0.22149	0.00031
#2	0.00144	-0.00032	0.00650	0.58185	20.01760	0.30806	88.90955	0.22051	0.00086
Mean	0.00129	0.00024	0.00644	0.58225	20.01085	0.30789	88.99708	0.22100	0.00058
%RSD	16.50161	331.70723	1.40995	0.09692	0.04769	0.07744	0.13909	0.31304	67.07844

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
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#1	37.62117	0.00071	0.35558	0.00116	-0.00245	2.05719	-0.00193	-0.00201	0.00306
#2	37.66762	0.00115	0.31900	-0.00090	-0.00052	2.03389	-0.00009	-0.00917	0.00035
Mean	37.64440	0.00093	0.33729	0.00013	-0.00149	2.04554	-0.00101	-0.00559	0.00171
%RSD	0.08726	33.57856	7.66867	1125.88560	91.93796	0.80548	129.02948	90.65294	112.12854

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	4.07175	-0.00903	5.56713	-0.06611	0.00087	0.00695	-0.03904	0.00009	0.04426
#2	4.07323	-0.00689	5.55662	-0.06722	0.00101	-0.00187	-0.04969	0.00098	0.04335
Mean	4.07249	-0.00796	5.56188	-0.06667	0.00094	0.00254	-0.04436	0.00054	0.04380
%RSD	0.02576	18.98046	0.13359	1.17471	9.96769	245.85749	16.97382	116.68770	1.47042

	Zr	Pb	Se
	ppm	calc	calc
#1	0.00311	-0.00125	0.00137
#2	0.00348	-0.00065	-0.00282
Mean	0.00330	-0.00095	-0.00072
%RSD	7.82443	44.76140	409.33427

Method : Paragon File : 111117A
SampleId1 : 1111185-19 SampleId2 :
Analysis commenced : 11/17/2011 16:12:23
Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/18/2011 12:18:51
[SAMPLE]
Position : TUBE35

Final concentrations

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00108	0.08976	-0.00023	0.01780	0.04616	-0.00016	0.00102	23.16597	0.00007
#2	-0.00016	0.08976	0.00330	0.01690	0.04663	-0.00016	0.00340	23.19013	0.00002
Mean	-0.00062	0.08976	0.00154	0.01735	0.04639	-0.00016	0.00221	23.17805	0.00004
%RSD	104.58955	0.00458	162.21706	3.66970	0.71714	1.63737	76.24220	0.07369	75.04715

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00073	-0.00079	-0.00168	0.12546	1.59674	0.00096	11.82602	0.00172	-0.00273
#2	-0.00111	-0.00104	-0.00181	0.12692	1.58726	0.00101	11.85516	0.00181	-0.00291
Mean	-0.00092	-0.00092	-0.00174	0.12619	1.59200	0.00098	11.84059	0.00177	-0.00282
%RSD	29.24019	19.00493	5.54120	0.81803	0.42124	3.58742	0.17402	3.91167	4.61029

	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	1.88683	-0.00197	-0.01490	-0.00285	-0.00094	4.42480	-0.00433	-0.00164	0.00136
#2	1.89119	-0.00252	-0.00926	-0.00136	-0.00014	4.42480	-0.00573	-0.00707	0.00397
Mean	1.88901	-0.00224	-0.01208	-0.00210	-0.00054	4.42480	-0.00503	-0.00435	0.00266
%RSD	0.16322	17.32256	33.03482	50.16521	104.90297	0.00000	19.73348	88.17324	69.11052

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	4.98438	-0.00390	0.17603	-0.02555	0.00105	0.00707	-0.03607	-0.00125	-0.00098

#2	4.97144	-0.00347	0.17676	-0.02955	0.00096	0.00233	-0.01477	0.00038	-0.00128
Mean	4.97791	-0.00369	0.17640	-0.02755	0.00101	0.00470	-0.02542	-0.00044	-0.00113
%RSD	0.18384	8.19921	0.29414	10.26976	6.20760	71.39446	59.25549	263.68700	18.96047

	Zr	Pb	Se
	ppm	calc	calc
#1	0.00026	-0.00158	0.00036
#2	0.00060	-0.00055	0.00029
Mean	0.00043	-0.00106	0.00033
%RSD	55.50600	68.80482	15.29222

Method : Paragon

File : 111117A

Printed : 11/18/2011 12:18:52

SampleId1 : 1111185-20

SampleId2 :

[SAMPLE]

Analysis commenced : 11/17/2011 16:14:12

Dilution ratio : 1.00000 to 1.00000 Tray :

Position : TUBE36

Final concentrations

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	0.00013	-0.02181	0.00841	0.01546	0.04527	-0.00010	0.00079	22.93438	0.00025
#2	0.00012	-0.01410	-0.00497	0.01519	0.04537	-0.00011	0.00166	22.91364	0.00038
Mean	0.00012	-0.01795	0.00172	0.01533	0.04532	-0.00010	0.00122	22.92401	0.00031
%RSD	6.25405	30.35347	550.06826	1.24646	0.16313	11.21496	50.24500	0.06398	30.44677

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00110	-0.00136	-0.00263	-0.01000	1.51978	0.00066	11.80430	-0.00112	-0.00410
#2	-0.00103	-0.00110	-0.00144	-0.01039	1.51759	0.00067	11.78999	-0.00102	-0.00153
Mean	-0.00106	-0.00123	-0.00203	-0.01020	1.51868	0.00066	11.79715	-0.00107	-0.00282
%RSD	5.03117	15.14425	41.50003	2.75952	0.10190	0.53324	0.08574	6.47351	64.54406

	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	1.88518	-0.00266	0.00015	-0.00347	0.00038	4.38213	-0.00391	-0.00428	-0.00107
#2	1.88563	-0.00131	0.00095	-0.00104	0.00088	4.43644	0.00074	-0.01407	-0.00027
Mean	1.88540	-0.00199	0.00055	-0.00226	0.00063	4.40928	-0.00159	-0.00917	-0.00067
%RSD	0.01692	48.24440	103.46042	76.22347	55.61248	0.87094	207.63639	75.49697	84.76437

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	4.80001	-0.00389	0.17571	-0.02250	-0.00263	0.00074	-0.04574	-0.00105	-0.00159
#2	4.79428	-0.00133	0.17580	-0.03426	-0.00239	0.00434	-0.03509	-0.00091	-0.00189
Mean	4.79714	-0.00261	0.17576	-0.02838	-0.00251	0.00254	-0.04041	-0.00098	-0.00174
%RSD	0.08440	69.35505	0.03615	29.30862	6.85688	100.12217	18.63576	10.11755	12.34177

	Zr	Pb	Se
	ppm	calc	calc
#1	0.00013	-0.00090	-0.00214
#2	0.00102	0.00024	-0.00486

Mean 0.00058 -0.00033 -0.00350UNDGREEN
 %RSD 109.52532 244.26859 55.09109

Method : Paragon File : 111117A
 SampleId1 : 1111185-22 SampleId2 :
 Analysis commenced : 11/17/2011 16:16:02
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/18/2011 12:18:52
 [SAMPLE]
 Position : TUBE37

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00221	1.80343	-0.00302	0.00574	0.05112	0.00015	-0.00625	22.93036	0.00039
#2	-0.00056	1.82826	0.00245	0.00574	0.05128	0.00014	-0.00020	22.93717	-0.00004
Mean	-0.00138	1.81585	-0.00029	0.00574	0.05120	0.00014	-0.00323	22.93376	0.00018
%RSD	84.16489	0.96662	1348.88125	0.00000	0.21660	3.78831	132.77803	0.02100	172.96093
	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00086	0.00028	-0.00040	1.11096	22.83039	-0.00212	3.90744	0.14676	0.01031
#2	-0.00078	0.00047	0.00030	1.11376	22.87525	-0.00215	3.91378	0.14696	0.00738
Mean	-0.00082	0.00038	-0.00005	1.11236	22.85282	-0.00213	3.91061	0.14686	0.00885
%RSD	6.57896	35.07379	930.55649	0.17801	0.13881	0.99386	0.11468	0.09417	23.49088
	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	4.56323	-0.00270	0.03939	-0.00744	0.00276	4.02133	-0.00339	-0.00046	0.00326
#2	4.57312	-0.00157	0.02810	-0.00149	0.00099	4.01357	-0.00341	-0.00962	0.00467
Mean	4.56817	-0.00213	0.03374	-0.00447	0.00187	4.01745	-0.00340	-0.00504	0.00397
%RSD	0.15302	37.64435	23.65562	94.27962	66.67267	0.13658	0.55890	128.49069	25.01014
	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	2.40479	-0.00436	0.07521	-0.00750	0.02868	-0.00057	0.02539	0.00318	0.00054
#2	2.40795	-0.00564	0.07524	-0.01525	0.02880	0.00176	0.05467	0.00355	0.00145
Mean	2.40637	-0.00500	0.07523	-0.01138	0.02874	0.00060	0.04003	0.00336	0.00099
%RSD	0.09294	18.13040	0.02812	48.19512	0.29909	277.33716	51.73009	7.84432	64.85973
	Zr ppm	Pb calc	Se calc						
#1	0.00370	-0.00064	0.00202						
#2	0.00460	0.00016	-0.00009						
Mean	0.00415	-0.00024	0.00097						
%RSD	15.28470	239.22957	154.63888						

Method : Paragon File : 111117A
 SampleId1 : 1111185-23 SampleId2 :
 Analysis commenced : 11/17/2011 16:17:51
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/18/2011 12:18:52
 [SAMPLE]
 Position : TUBE38

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00061	0.10179	-0.00023	0.00583	0.04417	0.00008	-0.00500	22.21180	-0.00019
#2	-0.00082	0.10195	0.00671	0.00772	0.04417	0.00008	-0.00197	22.21861	-0.00037
Mean	-0.00071	0.10187	0.00324	0.00677	0.04417	0.00008	-0.00348	22.21520	-0.00028
%RSD	20.45952	0.11131	151.28894	19.74996	0.00000	0.75913	61.41496	0.02166	44.35134

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00005	-0.00081	0.00042	0.21613	22.49885	-0.00303	3.68228	0.10971	0.00894
#2	0.00056	-0.00061	0.00078	0.21732	22.38360	-0.00301	3.67964	0.10961	0.00986
Mean	0.00025	-0.00071	0.00060	0.21673	22.44123	-0.00302	3.68096	0.10966	0.00940
%RSD	169.63200	19.82648	42.07564	0.38988	0.36316	0.35100	0.05076	0.06304	6.91046

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	4.52088	-0.00219	-0.00630	-0.00160	0.00260	4.10280	-0.00128	-0.00454	0.00408
#2	4.49381	-0.00069	-0.00980	-0.00112	-0.00216	4.08340	-0.00043	-0.00204	-0.00283
Mean	4.50735	-0.00144	-0.00805	-0.00136	0.00022	4.09310	-0.00085	-0.00329	0.00063
%RSD	0.42459	73.90094	30.69253	25.09012	1532.72118	0.33513	70.19857	53.61893	777.70963

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	0.49140	-0.00518	0.07225	-0.01031	0.00317	0.00416	0.04996	0.00165	-0.00007
#2	0.49461	-0.00048	0.07231	-0.01092	0.00315	-0.00280	0.05617	0.00249	-0.00159
Mean	0.49301	-0.00283	0.07228	-0.01062	0.00316	0.00068	0.05306	0.00207	-0.00083
%RSD	0.46006	117.28239	0.05854	4.02727	0.49426	721.38168	8.27708	28.61657	129.53658

	Zr ppm	Pb calc	Se calc
#1	0.00133	0.00120	0.00121
#2	0.00180	-0.00181	-0.00257
Mean	0.00156	-0.00031	-0.00068
%RSD	21.33086	695.93071	395.11138

Method : Paragon File : 111117A
 SampleId1 : IP111116-4MB SampleId2 :
 Analysis commenced : 11/17/2011 16:19:41
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/18/2011 12:18:52
 [SAMPLE]

Position : TUBE39

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00159	-0.01481	-0.00643	-0.00579	-0.00120	0.00012	-0.00742	-0.06352	-0.00020
#2	0.00003	0.00929	-0.00448	-0.00417	-0.00094	0.00018	0.00621	-0.05657	0.00049
Mean	-0.00078	-0.00276	-0.00546	-0.00498	-0.00107	0.00015	-0.00061	-0.06005	0.00015
%RSD	146.84193	617.46926	25.22099	23.01033	17.28988	27.40756	1588.07404	8.17731	331.65984

ted: 11/18/2011 12:19:03 User: MIKE LUNDGREEN

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00178	-0.00253	-0.00310	-0.01477	-0.28508	-0.00310	-0.06588	-0.00112	-0.00383
#2	0.00058	-0.00078	-0.00147	-0.01384	-0.26393	-0.00302	-0.05215	-0.00102	-0.00126
Mean	-0.00060	-0.00166	-0.00228	-0.01431	-0.27450	-0.00306	-0.05902	-0.00107	-0.00254
%RSD	278.79847	74.55057	50.48865	4.58843	5.44980	1.96299	16.44538	6.47351	71.54069

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	0.11854	-0.00208	-0.01087	-0.00855	0.00337	-0.02926	-0.00362	-0.00973	0.00434
#2	0.12406	-0.00113	-0.00899	0.00785	-0.00739	-0.01371	0.00187	0.00339	-0.00478
Mean	0.12130	-0.00160	-0.00993	-0.00035	-0.00201	-0.02149	-0.00088	-0.00317	-0.00022
%RSD	3.21812	42.04153	13.39577	3345.16222	378.73758	51.17051	442.50318	292.54905	2950.28246

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	-0.01867	0.00123	-0.00359	0.00396	-0.00187	-0.00031	-0.06082	-0.00160	0.00054
#2	-0.00168	0.00080	-0.00346	0.01612	-0.00159	-0.00004	0.00574	0.00007	0.00175
Mean	-0.01017	0.00102	-0.00352	0.01004	-0.00173	-0.00018	-0.02754	-0.00077	0.00114
%RSD	118.08231	29.71687	2.69861	85.58015	11.30488	108.37475	170.90317	154.55392	75.01211

	Zr ppm	Pb calc	Se calc
#1	-0.00143	-0.00060	-0.00035
#2	-0.00086	-0.00231	-0.00206
Mean	-0.00114	-0.00146	-0.00120
%RSD	35.15238	83.43426	100.58224

Method : Paragon File : 111117A
 SampleId1 : IP111116-4RVS SampleId2 :
 Analysis commenced : 11/17/2011 16:21:30
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/18/2011 12:18:53
 [SAMPLE]

Position : TUBE40

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	0.01041	1.01685	0.05780	0.04743	0.04809	0.01033	0.10760	4.99409	0.02147
#2	0.01087	1.02631	0.05318	0.04608	0.04819	0.01029	0.09984	4.97071	0.02013
Mean	0.01064	1.02158	0.05549	0.04676	0.04814	0.01031	0.10372	4.98240	0.02080
%RSD	3.03629	0.65520	5.88999	2.04288	0.15357	0.33355	5.29633	0.33178	4.55256

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.01928	0.04992	0.04706	1.01284	7.96907	0.04052	4.97421	0.04852	0.10004
#2	0.01935	0.04931	0.04705	1.00871	7.95996	0.04039	4.96945	0.04852	0.09876
Mean	0.01932	0.04962	0.04706	1.01077	7.96451	0.04045	4.97183	0.04852	0.09940
%RSD	0.27922	0.87090	0.01347	0.28904	0.08096	0.23560	0.06768	0.00000	0.91472

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	8.33332	0.04858	0.97014	0.05109	0.04781	1.03559	0.09254	0.05233	0.05343
#2	8.32830	0.04792	0.96933	0.04820	0.04936	1.03170	0.08959	0.04488	0.05233
Mean	8.33081	0.04825	0.96974	0.04965	0.04858	1.03364	0.09107	0.04860	0.05288
%RSD	0.04262	0.96621	0.05893	4.11467	2.24882	0.26579	2.29470	10.84718	1.47524

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	0.27278	0.09858	0.04887	-0.01157	0.04597	0.10418	0.46471	0.04989	0.04851
#2	0.27538	0.10285	0.04874	-0.01458	0.04597	0.09723	0.47624	0.04979	0.04578
Mean	0.27408	0.10071	0.04880	-0.01307	0.04597	0.10071	0.47048	0.04984	0.04714
%RSD	0.67228	2.99914	0.19501	16.29997	0.00000	4.88011	1.73406	0.13320	4.09874

	Zr ppm	Pb calc	Se calc
#1	0.04703	0.04890	0.05307
#2	0.04772	0.04897	0.04985
Mean	0.04738	0.04894	0.05146
%RSD	1.02572	0.09908	4.42316

Method : Paragon File : 111117A
SampleId1 : CCV SampleId2 :
Analysis commenced : 11/17/2011 16:33:14
Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/18/2011 12:18:53
[CV]

Position : STD6

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	0.21224	50.79366	0.49999	0.99112	0.99044	0.47747	0.52449	49.34471	0.51619
#2	0.21327	50.58762	0.50096	0.98600	0.98781	0.47656	0.50594	49.21682	0.51424
Mean	0.21275	50.69064	0.50048	0.98856	0.98912	0.47701	0.51521	49.28076	0.51521
%RSD	0.34225	0.28741	0.13721	0.36676	0.18803	0.13583	2.54572	0.18350	0.26781

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.49121	0.99129	1.00003	20.13517	51.20197	0.52987	50.01803	0.96832	0.98245
#2	0.48992	0.98680	0.99585	20.09358	50.96164	0.52717	49.85674	0.96596	0.98796
Mean	0.49057	0.98904	0.99794	20.11438	51.08181	0.52852	49.93738	0.96714	0.98521
%RSD	0.18689	0.32097	0.29582	0.14620	0.33267	0.36088	0.22839	0.17255	0.39606

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	48.47913	0.95011	4.88416	0.97273	0.97655	5.15784	0.46566	1.01757	0.99759
#2	48.22152	0.94642	4.89803	0.97319	0.98123	5.16947	0.46209	1.01524	0.99617
Mean	48.35033	0.94827	4.89110	0.97296	0.97889	5.16365	0.46387	1.01640	0.99688
%RSD	0.37675	0.27555	0.20058	0.03352	0.33820	0.15931	0.54286	0.16213	0.10064

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
--	----	----	----	----	----	----	---	---	----

	ppm								
#1	4.93536	0.98813	0.52044	0.30892	0.47830	0.48597	4.87413	0.49112	0.94289
#2	4.91268	0.98258	0.51921	0.30553	0.47792	0.48894	4.84670	0.48884	0.93894
Mean	4.92402	0.98535	0.51982	0.30722	0.47811	0.48745	4.86042	0.48998	0.94092
%RSD	0.32559	0.39794	0.16762	0.77969	0.05719	0.43186	0.39898	0.33012	0.29696

	Zr ppm	Pb calc	Se calc
#1	0.97288	0.97528	1.00424
#2	0.97070	0.97855	1.00252
Mean	0.97179	0.97692	1.00338
%RSD	0.15843	0.23716	0.12138

Method : Paragon

File : 111117A

Printed : 11/18/2011 12:18:53

SampleId1 : CCB

SampleId2 :

[CB]

Analysis commenced : 11/17/2011 16:35:11

Dilution ratio : 1.00000 to 1.00000 Tray :

Position : STD2

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	0.00018	-0.00990	-0.00521	-0.00273	-0.00109	-0.00011	-0.00633	-0.05989	0.00054
#2	-0.00049	-0.00705	0.00026	-0.00300	-0.00104	-0.00008	-0.00460	-0.05899	0.00045
Mean	-0.00015	-0.00848	-0.00248	-0.00287	-0.00107	-0.00010	-0.00547	-0.05944	0.00050
%RSD	306.25669	23.77192	156.29460	6.66787	3.45798	15.80487	22.32968	1.07744	11.57296

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00018	-0.00124	-0.00204	-0.00986	-0.25699	-0.00300	-0.04740	-0.00102	-0.00245
#2	-0.00102	-0.00053	-0.00240	-0.01066	-0.25918	-0.00302	-0.04318	-0.00082	-0.00263
Mean	-0.00060	-0.00088	-0.00222	-0.01026	-0.25809	-0.00301	-0.04529	-0.00092	-0.00254
%RSD	99.09409	56.54430	11.46556	5.48338	0.59963	0.35216	6.59364	15.00798	5.11005

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	0.12302	-0.00167	-0.01624	-0.00107	0.00389	-0.02926	-0.00713	-0.01687	0.00865
#2	0.12249	-0.00230	-0.02135	-0.00104	-0.00160	-0.02926	-0.00040	-0.00582	0.00254
Mean	0.12276	-0.00199	-0.01880	-0.00105	0.00115	-0.02926	-0.00376	-0.01134	0.00559
%RSD	0.30081	22.16635	19.20627	1.55433	338.45333	0.00000	126.51089	68.87939	77.26662

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	-0.02397	-0.00475	-0.00340	-0.01112	-0.00224	-0.00319	-0.02799	-0.00100	-0.00219
#2	-0.02382	-0.00176	-0.00338	-0.01138	-0.00243	0.00586	-0.02799	-0.00067	-0.00341
Mean	-0.02390	-0.00325	-0.00339	-0.01125	-0.00234	0.00133	-0.02799	-0.00084	-0.00280
%RSD	0.43028	64.98711	0.31174	1.61557	5.68704	479.91690	0.00137	27.55379	30.64589

	Zr ppm	Pb calc	Se calc
#1	0.97288	0.97528	1.00424
#2	0.97070	0.97855	1.00252
Mean	0.97179	0.97692	1.00338
%RSD	0.15843	0.23716	0.12138

#1 0.00093 0.00224 0.00015UNDGREEN
 #2 0.00124 -0.00141 -0.00025
Mean 0.00109 0.00041 -0.00005
 %RSD 20.18494 624.36375 594.35643

Method : Paragon File : 111117A
 SampleId1 : IP111116-4LCS SampleId2 :
 Analysis commenced : 11/17/2011 16:36:53
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/18/2011 12:18:53
 [SAMPLE]
 Position : TUBE41

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	0.09686	2.03940	1.93087	0.49119	1.92813	0.04846	-0.00286	38.03184	0.05080
#2	0.09638	2.03004	1.92858	0.48246	1.91331	0.04830	-0.00525	37.83655	0.05079
Mean	0.09662	2.03472	1.92972	0.48682	1.92072	0.04838	-0.00405	37.93420	0.05080
%RSD	0.34767	0.32497	0.08396	1.26813	0.54555	0.23673	41.67511	0.36403	0.00845

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.48197	0.19354	0.24188	0.97206	37.58049	0.49683	37.58794	0.47834	0.96764
#2	0.48013	0.19195	0.23899	0.97072	37.18990	0.49170	37.33327	0.47570	0.96359
Mean	0.48105	0.19275	0.24044	0.97139	37.38520	0.49427	37.46060	0.47702	0.96562
%RSD	0.27016	0.58176	0.85007	0.09700	0.73877	0.73432	0.48070	0.39226	0.29633

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	36.55505	0.46996	-0.01490	0.48320	0.47998	-0.02149	0.45074	2.08704	2.00776
#2	36.18499	0.46560	-0.01436	0.47856	0.47731	-0.01760	0.44510	2.07116	2.01424
Mean	36.37002	0.46778	-0.01463	0.48088	0.47865	-0.01954	0.44792	2.07910	2.01100
%RSD	0.71947	0.65850	2.59724	0.68288	0.39460	14.06490	0.89039	0.53991	0.22813

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	1.97711	0.48371	0.51043	-0.04623	0.46796	1.93237	-0.05262	0.48857	0.46550
#2	1.96597	0.47945	0.50604	-0.04472	0.46359	1.92754	-0.04108	0.48643	0.46915
Mean	1.97154	0.48158	0.50824	-0.04548	0.46577	1.92995	-0.04685	0.48750	0.46733
%RSD	0.39977	0.62611	0.61042	2.34446	0.66424	0.17685	17.41569	0.31042	0.55159

	Zr ppm	Pb calc	Se calc
#1	0.00485	0.48105	2.03416
#2	0.00468	0.47773	2.03320
Mean	0.00477	0.47939	2.03368
%RSD	2.54541	0.49090	0.03334

Method : Paragon File : 111117A
 SampleId1 : 1111137-1 SampleId2 :
 Analysis commenced : 11/17/2011 16:38:43

Printed : 11/18/2011 12:18:53
 [SAMPLE]

Dilution ratio : 1.00000 to 1.00000 Tray :

Position : TUBE42

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00094	-0.00164	0.00294	0.13370	0.18496	0.00016	0.00036	130.92755	0.00054
#2	-0.00076	-0.00020	0.00111	0.13136	0.18642	0.00019	-0.00093	131.29253	0.00051
Mean	-0.00085	-0.00092	0.00202	0.13253	0.18569	0.00018	-0.00029	131.11004	0.00053
%RSD	14.75691	110.26987	63.73692	1.24914	0.55790	14.11085	316.16672	0.19684	4.14161

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00060	-0.00108	-0.00214	0.87973	2.03154	-0.00069	58.28193	0.03601	-0.00052
#2	-0.00083	-0.00097	-0.00216	0.88200	2.06145	-0.00054	58.48713	0.03621	-0.00217
Mean	-0.00072	-0.00103	-0.00215	0.88086	2.04650	-0.00061	58.38453	0.03611	-0.00135
%RSD	22.33648	8.12573	0.79326	0.18177	1.03347	17.26135	0.24852	0.38270	86.73134

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	71.26714	-0.00292	0.07460	-0.00162	-0.00067	4.57996	0.00033	0.00074	0.00392
#2	71.69725	-0.00296	0.07110	-0.00263	0.00300	4.60323	-0.00137	-0.00141	0.00422
Mean	71.48219	-0.00294	0.07285	-0.00213	0.00116	4.59160	-0.00052	-0.00033	0.00407
%RSD	0.42547	0.88135	3.39171	33.62029	223.39612	0.35841	230.74113	456.52466	5.22090

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	11.02431	-0.00475	0.70266	-0.05554	-0.00249	0.00575	-0.05877	-0.00101	0.00023
#2	11.06307	0.00038	0.70536	-0.05863	-0.00256	0.00218	-0.02771	-0.00027	0.00297
Mean	11.04369	-0.00219	0.70401	-0.05708	-0.00252	0.00396	-0.04324	-0.00064	0.00160
%RSD	0.24814	165.84218	0.27068	3.83593	2.16741	63.80953	50.79845	82.36020	120.74389

	Zr ppm	Pb calc	Se calc
#1	0.00129	-0.00099	0.00286
#2	0.00179	0.00113	0.00235
Mean	0.00154	0.00007	0.00260
%RSD	23.01920	2211.47303	14.03371

Method : Paragon File : 111117A

Printed : 11/18/2011 12:18:54

SampleId1 : 1111138-1

SampleId2 :

[SAMPLE]

Analysis commenced : 11/17/2011 16:40:33

Dilution ratio : 1.00000 to 1.00000 Tray :

Position : TUBE43

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00075	0.00044	0.02106	0.09624	0.41500	0.00019	-0.00460	121.20552	0.00005
#2	-0.00070	0.00287	0.02484	0.09723	0.41311	0.00020	0.00124	120.76581	0.00022

Mean	-0.00072	0.00166	0.02295	0.09673	0.41405	0.00019	-0.00168	120.98567	0.00014
%RSD	4.44285	103.45640	11.61951	0.72406	0.32218	4.90195	246.10271	0.25699	88.43202
	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm								
#1	-0.00066	-0.00186	0.00085	3.63752	1.31369	-0.00078	51.85760	0.03767	-0.00135
#2	-0.00059	-0.00060	0.00252	3.62254	1.30201	-0.00071	51.60508	0.03748	-0.00227
Mean	-0.00062	-0.00123	0.00169	3.63003	1.30785	-0.00075	51.73134	0.03757	-0.00181
%RSD	8.29710	72.45448	69.72710	0.29176	0.63109	7.09976	0.34516	0.36778	35.93912
	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	ppm								
#1	26.24450	-0.00358	0.49736	0.00017	0.00135	2.30960	-0.00150	-0.01077	0.00508
#2	26.15699	-0.00164	0.49386	0.00200	0.00064	2.33678	0.00003	-0.01433	0.00347
Mean	26.20074	-0.00261	0.49561	0.00108	0.00100	2.32319	-0.00073	-0.01255	0.00428
%RSD	0.23616	52.61360	0.49907	119.42466	50.41073	0.82731	146.90629	20.03532	26.56065
	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm								
#1	8.75218	-0.00389	0.76793	-0.04825	-0.00255	0.00633	-0.04556	-0.00099	0.06885
#2	8.71651	0.00123	0.76270	-0.05324	-0.00246	0.00611	-0.01981	-0.00011	0.06703
Mean	8.73434	-0.00133	0.76532	-0.05074	-0.00251	0.00622	-0.03268	-0.00055	0.06794
%RSD	0.28880	272.25364	0.48298	6.95967	2.49341	2.54475	55.70509	113.50227	1.89606
	Zr	Pb	Se						
	ppm	calc	calc						
#1	0.00200	0.00096	-0.00020						
#2	0.00285	0.00109	-0.00246						
Mean	0.00243	0.00102	-0.00133						
%RSD	24.82344	9.30592	120.10904						

Method : Paragon File : 111117A
SampleId1 : 1111140-1 SampleId2 :
Analysis commenced : 11/17/2011 16:42:23
Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/18/2011 12:18:54
[SAMPLE]

Position : TUBE44

Final concentrations

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00102	0.00489	0.00111	0.00529	0.05081	0.00027	-0.00106	44.37432	0.00004
#2	-0.00101	0.00766	0.00002	0.00547	0.05086	0.00025	-0.00020	44.47151	0.00015
Mean	-0.00102	0.00627	0.00056	0.00538	0.05083	0.00026	-0.00063	44.42292	0.00009
%RSD	0.09449	31.28975	137.12002	2.36942	0.07272	6.08541	97.16243	0.15470	87.98456
	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00125	-0.00150	0.02931	0.00950	-0.02464	0.00311	17.12991	0.00006	-0.00355
#2	-0.00117	-0.00093	0.03051	0.00857	-0.02646	0.00312	17.19200	0.00006	-0.00401
Mean	-0.00121	-0.00122	0.02991	0.00904	-0.02555	0.00312	17.16096	0.00006	-0.00378

%RSD	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
	4.47668	33.27838	2.84438	7.26540	5.04750	0.11339	0.25583	0.00000	8.58656
#1	28.73222	-0.00266	-0.00576	0.00109	-0.00091	17.92786	-0.00222	-0.01578	0.00184
#2	28.76218	-0.00204	-0.00845	-0.00187	-0.00036	17.86233	-0.00350	-0.00333	0.00094
Mean	28.74720	-0.00235	-0.00711	-0.00039	-0.00063	17.89509	-0.00286	-0.00956	0.00139
%RSD	0.07370	18.71527	26.73386	539.80840	61.40812	0.25893	31.52541	92.08555	45.90426
	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	9.38663	-0.00133	0.07035	-0.02898	-0.00234	0.00424	-0.02977	-0.00067	0.00661
#2	9.41668	0.00251	0.07057	-0.02891	-0.00252	0.00296	-0.03244	-0.00030	0.00813
Mean	9.40166	0.00059	0.07046	-0.02895	-0.00243	0.00360	-0.03110	-0.00048	0.00737
%RSD	0.22606	460.12361	0.22517	0.18869	5.14559	25.09773	6.05112	54.49707	14.56719
	Zr ppm	Pb calc	Se calc						
#1	-0.00048	-0.00024	-0.00403						
#2	-0.00035	-0.00086	-0.00048						
Mean	-0.00041	-0.00055	-0.00226						
%RSD	22.06449	79.04437	111.04635						

Method : Paragon File : 111117A
SampleId1 : 1111160-1 SampleId2 :
Analysis commenced : 11/17/2011 16:44:13
Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/18/2011 12:18:54
[SAMPLE]

Position : TUBE45

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00112	76.76126	0.05196	0.16575	1.07100	0.00922	0.00287	230.22295	0.00234
#2	-0.00179	76.75889	0.05184	0.16314	1.06994	0.00920	0.00589	230.27089	0.00208
Mean	-0.00146	76.76008	0.05190	0.16445	1.07047	0.00921	0.00438	230.24692	0.00221
%RSD	32.44442	0.00218	0.16572	1.12279	0.06953	0.13663	48.83892	0.01472	8.32254
	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.06074	0.06063	0.13830	141.52578	42.27559	0.11183	47.33335	1.86814	0.00150
#2	0.06089	0.06170	0.13841	141.48399	42.20703	0.11175	47.33602	1.86606	0.00389
Mean	0.06081	0.06117	0.13835	141.50488	42.24131	0.11179	47.33468	1.86710	0.00269
%RSD	0.17424	1.24274	0.06101	0.02088	0.11477	0.05043	0.00400	0.07868	62.69351
	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	18.06025	0.10296	4.48039	0.15407	0.16453	24.33203	0.00111	-0.02318	0.01578
#2	18.04444	0.10128	4.46300	0.15595	0.16219	24.19753	0.00211	-0.01383	0.01547
Mean	18.05235	0.10212	4.47169	0.15501	0.16336	24.26478	0.00161	-0.01850	0.01562
%RSD	0.06193	1.16649	0.27503	0.85825	1.00926	0.39196	43.62432	35.69915	1.39860

ted: 11/18/2011 12:19:03 User: MIKE LUNDGREEN

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	81.79435	0.00997	1.24793	0.03064	0.19886	0.00222	0.05313	0.19049	0.41842
#2	81.78304	0.00057	1.24781	0.03620	0.19930	0.00324	0.05405	0.19025	0.42024
Mean	81.78869	0.00527	1.24787	0.03342	0.19908	0.00273	0.05359	0.19037	0.41933
%RSD	0.00978	126.12693	0.00686	11.75882	0.15700	26.60627	1.20845	0.08944	0.30735

	Zr ppm	Pb calc	Se calc
#1	-0.00452	0.16105	0.00280
#2	-0.00429	0.16012	0.00571
Mean	-0.00441	0.16058	0.00426
%RSD	3.77684	0.40894	48.25046

Method : Paragon File : 111117A
 SampleId1 : 111162-16 SampleId2 :
 Analysis commenced : 11/17/2011 16:46:03
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/18/2011 12:18:54
 [SAMPLE]

Position : TUBE46

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00068	2.56068	0.00063	0.02591	0.08699	0.00047	-0.00302	44.84230	0.00013
#2	-0.00048	2.57845	-0.00363	0.02681	0.08683	0.00047	0.00324	44.70803	0.00026
Mean	-0.00058	2.56957	-0.00150	0.02636	0.08691	0.00047	0.00011	44.77517	0.00019
%RSD	23.86248	0.48885	200.25062	2.41589	0.12763	0.26318	3974.23967	0.21205	50.11502

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.00071	0.00058	0.00097	3.12374	10.22032	0.00227	7.02784	0.05008	-0.00254
#2	0.00055	0.00085	0.00061	3.11607	10.22214	0.00225	7.00245	0.05008	-0.00089
Mean	0.00063	0.00072	0.00079	3.11991	10.22123	0.00226	7.01515	0.05008	-0.00171
%RSD	17.37945	26.39350	32.52833	0.17390	0.01262	0.62560	0.25596	0.00000	68.15443

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	1.86473	0.00027	0.09825	-0.00064	0.00355	13.47117	0.00044	-0.00853	0.00127
#2	1.86804	0.00118	0.09422	0.00018	0.00245	13.35142	-0.00335	-0.01133	0.00047
Mean	1.86639	0.00072	0.09623	-0.00023	0.00300	13.41129	-0.00146	-0.00993	0.00087
%RSD	0.12531	89.41697	2.96268	247.59686	25.83289	0.63136	183.71450	19.93534	65.47895

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	6.70891	-0.00522	0.25261	-0.00681	0.03191	0.00091	-0.03633	0.00436	0.00782
#2	6.72758	-0.00223	0.25182	-0.01588	0.03331	0.00555	-0.03455	0.00440	0.00509
Mean	6.71824	-0.00372	0.25221	-0.01134	0.03261	0.00323	-0.03544	0.00438	0.00646
%RSD	0.19645	56.78300	0.22268	56.51646	3.04349	101.56637	3.55171	0.72760	29.91912

	Zr	Pb	Se
	ppm	calc	UNDGREEN calc
#1	0.00000	0.00215	-0.00199
#2	0.00080	0.00169	-0.00346
Mean	0.00040	0.00192	-0.00273
%RSD	142.99412	16.87644	38.04740

Method : Paragon File : 11117A
 SampleId1 : 111185-13 SampleId2 :
 Analysis commenced : 11/17/2011 16:47:52
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/18/2011 12:18:55
 [SAMPLE]

Position : TUBE47

Final concentrations

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00047	0.01354	0.00136	0.01879	0.04124	0.00028	-0.00677	28.99483	0.00006
#2	-0.00041	0.00910	-0.00023	0.01969	0.04098	0.00030	-0.00029	28.98798	0.00020
Mean	-0.00044	0.01132	0.00056	0.01924	0.04111	0.00029	-0.00353	28.99141	0.00013
%RSD	9.76278	27.75195	198.06251	3.30906	0.44956	4.86730	129.90045	0.01672	79.28279

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00157	-0.00230	-0.00227	-0.01291	3.37751	-0.00277	3.42438	-0.00102	0.00168
#2	-0.00088	-0.00133	-0.00227	-0.01265	3.39028	-0.00280	3.45081	-0.00102	0.00187
Mean	-0.00122	-0.00182	-0.00227	-0.01278	3.38390	-0.00279	3.43759	-0.00102	0.00177
%RSD	39.58651	37.86178	0.10731	1.46742	0.26677	0.76050	0.54352	0.00000	7.31810

	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	4.12608	-0.00160	0.01762	-0.00628	0.00108	3.59061	-0.00062	0.00335	0.00374
#2	4.14316	-0.00080	0.02971	-0.00373	0.00112	3.62942	0.00190	-0.00303	0.00414
Mean	4.13462	-0.00120	0.02366	-0.00501	0.00110	3.61002	0.00064	0.00016	0.00394
%RSD	0.29208	47.52925	36.13919	36.01461	2.67459	0.76012	279.64252	2800.77989	7.19256

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	1.36311	-0.00475	0.12222	-0.00556	-0.00240	-0.00378	-0.04485	0.00235	-0.00098
#2	1.37334	-0.00731	0.12228	-0.01331	-0.00240	0.00840	-0.04041	0.00235	-0.00159
Mean	1.36823	-0.00603	0.12225	-0.00944	-0.00240	0.00231	-0.04263	0.00235	-0.00128
%RSD	0.52852	30.05374	0.03463	58.14479	0.00000	373.34300	7.36059	0.00155	33.43789

	Zr	Pb	Se
	ppm	calc	calc
#1	-0.00030	-0.00137	0.00361
#2	0.00043	-0.00050	0.00175
Mean	0.00006	-0.00094	0.00268
%RSD	806.71672	66.26747	48.95315

Method : Paragon File : 11117A

Printed : 11/18/2011 12:18:55

SampleId1 : 1111185-13D SampleId2 :
 Analysis commenced : 11/17/2011 16:49:42
 Dilution ratio : 1.00000 to 1.00000 Tray :

[SAMPLE]
 Position : TUBE48

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00214	0.00022	0.00196	0.01798	0.03978	0.00023	0.00014	28.34451	0.00020
#2	-0.00074	0.00855	-0.00570	0.01888	0.04004	0.00021	-0.00331	28.24862	0.00021
Mean	-0.00144	0.00438	-0.00187	0.01843	0.03991	0.00022	-0.00158	28.29657	0.00021
%RSD	68.34637	134.39151	290.04224	3.45456	0.46310	5.42573	154.13919	0.23962	3.05788

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00134	-0.00179	-0.00190	-0.01345	3.31514	-0.00277	3.36467	-0.00112	0.00159
#2	-0.00088	-0.00150	-0.00215	-0.00960	3.30347	-0.00276	3.34406	-0.00082	0.00233
Mean	-0.00111	-0.00165	-0.00203	-0.01152	3.30930	-0.00277	3.35436	-0.00097	0.00196
%RSD	29.08418	12.70851	8.71094	23.60463	0.24941	0.12778	0.43446	21.37764	26.52703

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	4.04928	-0.00149	0.01332	-0.00294	0.00131	3.48195	-0.00344	-0.00521	0.01316
#2	4.03259	-0.00204	0.02111	0.00187	0.00116	3.52076	-0.00049	-0.00272	0.00194
Mean	4.04093	-0.00177	0.01721	-0.00053	0.00124	3.50135	-0.00196	-0.00397	0.00755
%RSD	0.29210	21.99170	32.01624	637.83094	8.42605	0.78375	106.44454	44.56997	105.13242

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	1.33623	-0.00518	0.11941	-0.00766	-0.00244	0.00352	-0.05195	0.00207	-0.00068
#2	1.33402	-0.00304	0.11901	-0.01024	-0.00231	0.00376	-0.03952	0.00254	-0.00128
Mean	1.33512	-0.00411	0.11921	-0.00895	-0.00237	0.00364	-0.04573	0.00231	-0.00098
%RSD	0.11697	36.76094	0.23969	20.42416	3.94899	4.67404	19.20623	14.29649	43.79221

	Zr ppm	Pb calc	Se calc
#1	-0.00044	-0.00010	0.00704
#2	0.00016	0.00140	0.00039
Mean	-0.00014	0.00065	0.00371
%RSD	304.37529	164.20460	126.67235

Method : Paragon File : 111117A
 SampleId1 : 1111185-13L 5X SampleId2 :
 Analysis commenced : 11/17/2011 16:51:32
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/18/2011 12:18:55
 [SAMPLE]
 Position : TUBE49

Final concentrations

Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
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#1	-0.00115	-0.00098	-0.00388	-0.00039	0.00727	0.00009	-0.00417	5.76073	-0.00010
#2	-0.00130	-0.00093	0.00245	-0.00039	0.00721	0.00007	-0.01000	5.73307	-0.00026
Mean	-0.00122	-0.00095	-0.00071	-0.00039	0.00724	0.00008	-0.00709	5.74690	-0.00018
%RSD	8.77268	3.89356	627.57210	0.00000	0.51037	23.62765	58.13415	0.34023	59.55155

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00085	-0.00079	-0.00252	-0.01371	0.39630	-0.00302	0.64001	-0.00102	-0.00208
#2	-0.00093	-0.00074	-0.00277	-0.01398	0.39667	-0.00302	0.64318	-0.00102	-0.00162
Mean	-0.00089	-0.00077	-0.00265	-0.01384	0.39648	-0.00302	0.64159	-0.00102	-0.00185
%RSD	6.02843	5.10528	6.88075	1.35494	0.06505	0.00000	0.34916	0.00000	17.52422

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	0.84976	-0.00076	-0.00281	-0.00347	0.00266	0.68588	-0.00320	-0.00816	0.00644
#2	0.85073	0.00027	-0.00603	-0.00787	0.00063	0.69754	-0.00601	-0.01452	0.00284
Mean	0.85024	-0.00025	-0.00442	-0.00567	0.00165	0.69171	-0.00460	-0.01134	0.00464
%RSD	0.08091	294.18650	51.58317	54.83696	87.23274	1.19174	43.11743	39.67623	54.96479

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	0.25535	-0.00261	0.02160	-0.00234	-0.00219	-0.00076	-0.03508	-0.00025	-0.00128
#2	0.25283	-0.00304	0.02145	-0.00842	-0.00233	-0.00504	-0.01290	-0.00053	-0.00128
Mean	0.25409	-0.00283	0.02152	-0.00538	-0.00226	-0.00290	-0.02399	-0.00039	-0.00128
%RSD	0.69958	10.68159	0.49121	79.93293	4.49787	104.32340	65.39856	50.09731	0.00000

	Zr ppm	Pb calc	Se calc
#1	-0.00059	0.00062	0.00158
#2	0.00001	-0.00220	-0.00294
Mean	-0.00029	-0.00079	-0.00068
%RSD	147.35513	252.71471	469.63350

Method : Paragon File : 111117A
SampleId1 : 1111185-13MS SampleId2 :
Analysis commenced : 11/17/2011 16:53:22
Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/18/2011 12:18:55
[SAMPLE]

Position : TUBE50

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	0.09632	2.01462	1.90313	0.50298	1.94703	0.04740	-0.00353	65.50930	0.05049
#2	0.09620	2.01270	1.90349	0.50388	1.95422	0.04751	-0.00655	65.60726	0.04966
Mean	0.09626	2.01366	1.90331	0.50343	1.95062	0.04745	-0.00504	65.55828	0.05007
%RSD	0.09376	0.06736	0.01344	0.12642	0.26097	0.15414	42.36524	0.10566	1.17164

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.47168	0.18967	0.24103	0.95074	41.99296	0.50158	40.05011	0.46639	0.95715

#2	0.47260	0.18840	0.24200	0.95407	42.04766	0.50206	40.08965	0.46766	0.96175
Mean	0.47214	0.18903	0.24152	0.95240	42.02031	0.50182	40.06988	0.46702	0.95945
%RSD	0.13785	0.47650	0.28263	0.24732	0.09205	0.06814	0.06977	0.19289	0.33889

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	41.12061	0.46282	0.03105	0.47117	0.47103	3.51300	0.45026	2.00623	1.95281
#2	41.16934	0.46341	0.02165	0.47193	0.46747	3.53240	0.45243	2.00806	1.96345
Mean	41.14497	0.46312	0.02635	0.47155	0.46925	3.52270	0.45134	2.00714	1.95813
%RSD	0.08374	0.08943	25.24165	0.11297	0.53642	0.38950	0.33849	0.06442	0.38431

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	3.27558	0.47604	0.62683	-0.04422	0.45475	1.89956	-0.04284	0.48355	0.45760
#2	3.27883	0.47988	0.62898	-0.04223	0.45609	1.90624	-0.04905	0.48471	0.45457
Mean	3.27720	0.47796	0.62790	-0.04323	0.45542	1.90290	-0.04595	0.48413	0.45609
%RSD	0.07010	0.56821	0.24226	3.25479	0.20929	0.24793	9.56419	0.16996	0.47098

	Zr ppm	Pb calc	Se calc
#1	0.00252	0.47108	1.97060
#2	0.00209	0.46896	1.97831
Mean	0.00231	0.47002	1.97445
%RSD	12.94099	0.31947	0.27602

Method : Paragon File : 111117A
 SampleId1 : CCV SampleId2 :
 Analysis commenced : 11/17/2011 16:55:51
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/18/2011 12:18:55
 [CV]

Position : STD6

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	0.21366	50.57899	0.50375	0.98888	0.98712	0.47239	0.52556	49.01261	0.51396
#2	0.21307	50.69368	0.49647	0.98663	0.99012	0.47203	0.51004	48.95823	0.51398
Mean	0.21337	50.63634	0.50011	0.98775	0.98862	0.47221	0.51780	48.98542	0.51397
%RSD	0.19418	0.16016	1.02981	0.16099	0.21446	0.05390	2.11848	0.07850	0.00386

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.48787	0.98339	1.00038	19.96480	51.05865	0.52856	49.68206	0.95809	0.99008
#2	0.48673	0.98303	1.00172	19.97291	51.16404	0.52952	49.67509	0.95888	0.98364
Mean	0.48730	0.98321	1.00105	19.96886	51.11134	0.52904	49.67857	0.95849	0.98686
%RSD	0.16531	0.02578	0.09432	0.02872	0.14581	0.12852	0.00991	0.05803	0.46130

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	48.29823	0.95052	4.89776	0.97089	0.96510	5.13069	0.46369	1.02206	0.99654
#2	48.36303	0.94986	4.86539	0.96706	0.96778	5.08416	0.45985	1.00338	0.99927

Mean	48.33063	0.95019	4.88158	0.96897	0.96644	5.10742	0.46177	1.01272	0.99791
%RSD	0.09481	0.04901	0.46892	0.27986	0.19598	0.64427	0.58894	1.30416	0.19293
	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	4.88655	0.98131	0.51936	0.30858	0.47297	0.49666	4.87424	0.48737	0.92739
#2	4.89432	0.97789	0.52033	0.30815	0.47388	0.50371	4.85298	0.48877	0.92861
Mean	4.89043	0.97960	0.51984	0.30836	0.47342	0.50018	4.86361	0.48807	0.92800
%RSD	0.11248	0.24642	0.13286	0.09921	0.13697	0.99676	0.30909	0.20242	0.09264
	Zr	Pb	Se						
	ppm	calc	calc						
#1	0.96805	0.96703	1.00504						
#2	0.96793	0.96754	1.00064						
Mean	0.96799	0.96728	1.00284						
%RSD	0.00925	0.03725	0.31051						

Method : Paragon

File : 111117A

Printed : 11/18/2011 12:18:56

SampleId1 : CCB

SampleId2 :

[CB]

Analysis commenced : 11/17/2011 16:57:48

Dilution ratio : 1.00000 to 1.00000 Tray :

Position : STD2

Final concentrations

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	ppm								
#1	-0.00123	0.00461	-0.00047	-0.00192	-0.00094	0.00002	-0.00439	-0.05446	0.00002
#2	-0.00149	0.01339	-0.00047	-0.00192	-0.00099	0.00001	0.00166	-0.05446	0.00035
Mean	-0.00136	0.00900	-0.00047	-0.00192	-0.00096	0.00001	-0.00136	-0.05446	0.00019
%RSD	13.43357	68.98891	0.00000	0.00000	3.83286	75.56336	313.51505	0.00000	123.03108
	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm								
#1	-0.00124	-0.00087	-0.00241	-0.00841	-0.29748	-0.00308	-0.04107	-0.00082	-0.00254
#2	-0.00079	-0.00096	-0.00228	-0.00827	-0.29858	-0.00308	-0.04160	-0.00082	-0.00098
Mean	-0.00102	-0.00092	-0.00234	-0.00834	-0.29803	-0.00308	-0.04133	-0.00082	-0.00176
%RSD	31.78900	7.25881	3.91373	1.12467	0.25963	0.00000	0.90316	0.00000	62.68964
	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	ppm								
#1	0.12511	-0.00215	-0.01732	-0.00208	0.00004	-0.02926	-0.00292	-0.01484	0.00053
#2	0.12466	-0.00230	-0.01060	-0.00278	0.00115	-0.00982	-0.00712	-0.00644	0.00284
Mean	0.12488	-0.00222	-0.01396	-0.00243	0.00060	-0.01954	-0.00502	-0.01064	0.00169
%RSD	0.25345	4.65738	34.02791	20.29858	131.49155	70.32443	59.14780	55.77701	96.64369
	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm								
#1	-0.02354	-0.00646	-0.00340	-0.00550	-0.00226	-0.00585	-0.01911	-0.00058	-0.00341
#2	-0.02483	-0.00176	-0.00334	-0.00770	-0.00228	0.00122	-0.03154	-0.00063	-0.00189
Mean	-0.02419	-0.00411	-0.00337	-0.00660	-0.00227	-0.00232	-0.02532	-0.00060	-0.00265

%RSD 3.76746 80.87765 1.25527 23.54367 0.34431 215.57100 34.69262 5.45835 40.50153

	Zr ppm	Pb calc	Se calc
#1	0.00051	-0.00066	-0.00458
#2	0.00028	-0.00016	-0.00025
Mean	0.00040	-0.00041	-0.00242
%RSD	41.21824	87.89618	126.63325

Method : Paragon File : 111117A
 SampleId1 : 1111185-13MSD SampleId2 :
 Analysis commenced : 11/17/2011 16:59:55
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/18/2011 12:18:56
 [SAMPLE]

Position : TUBE51

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	0.09525	2.00138	1.89203	0.49965	1.92786	0.04734	0.00056	65.76537	0.05015
#2	0.09672	1.99766	1.88443	0.50172	1.92681	0.04725	-0.00009	65.58204	0.05042
Mean	0.09598	1.99952	1.88823	0.50068	1.92734	0.04729	0.00024	65.67370	0.05029
%RSD	1.07898	0.13170	0.28457	0.29236	0.03884	0.13738	192.01292	0.19739	0.37931

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.46952	0.18749	0.23792	0.94887	41.84562	0.49905	40.19063	0.46472	0.95504
#2	0.46906	0.18809	0.23791	0.94541	41.82301	0.49888	40.14308	0.46492	0.95384
Mean	0.46929	0.18779	0.23791	0.94714	41.83431	0.49897	40.16685	0.46482	0.95444
%RSD	0.06878	0.22601	0.00205	0.25863	0.03822	0.02378	0.08371	0.02982	0.08857

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	41.01700	0.45894	0.02272	0.46778	0.47067	3.46255	0.44113	1.99277	1.95028
#2	40.98604	0.45686	0.02219	0.47076	0.46988	3.51688	0.44772	1.99645	1.97045
Mean	41.00152	0.45790	0.02245	0.46927	0.47027	3.48971	0.44443	1.99461	1.96036
%RSD	0.05340	0.32223	1.69270	0.44911	0.11843	1.10091	1.04846	0.13032	0.72746

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	3.26401	0.47604	0.62105	-0.04289	0.45405	1.90129	-0.04728	0.48210	0.45123
#2	3.26106	0.47049	0.62048	-0.04406	0.45328	1.90682	-0.03840	0.48024	0.45092
Mean	3.26253	0.47327	0.62077	-0.04348	0.45366	1.90405	-0.04284	0.48117	0.45107
%RSD	0.06386	0.82910	0.06511	1.90270	0.12055	0.20531	14.65354	0.27355	0.04762

	Zr ppm	Pb calc	Se calc
#1	0.00370	0.46971	1.96443
#2	0.00344	0.47017	1.97911
Mean	0.00357	0.46994	1.97177
%RSD	5.25398	0.07029	0.52631

ted: 11/18/2011 12:19:03 User: MIKE LUNDGREEN
 Method : Paragon File : 111117A
 SampleId1 : 1111185-24 SampleId2 :
 Analysis commenced : 11/17/2011 17:01:51
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/18/2011 12:18:56
 [SAMPLE]

Position : TUBE52

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00088	0.54853	-0.00156	0.02321	0.05630	0.00010	-0.00631	48.41423	-0.00006
#2	-0.00061	0.54978	0.00476	0.02375	0.05708	0.00011	-0.00761	48.51055	-0.00012
Mean	-0.00074	0.54915	0.00160	0.02348	0.05669	0.00010	-0.00696	48.46239	-0.00009
%RSD	25.17946	0.16092	279.80741	1.62747	0.97816	9.21834	13.16383	0.14053	52.49671

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00065	-0.00002	-0.00155	1.73433	2.75013	0.00298	13.05169	0.39516	-0.00144
#2	0.00072	-0.00073	-0.00179	1.73513	2.74648	0.00307	13.10045	0.39682	-0.00135
Mean	0.00003	-0.00037	-0.00167	1.73473	2.74830	0.00303	13.07607	0.39599	-0.00139
%RSD	3037.90288	134.45804	10.27235	0.03271	0.09385	2.09988	0.26368	0.29735	4.65965

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	1.89788	-0.00189	0.02622	0.00189	0.00373	2.91138	0.00382	-0.00432	0.00449
#2	1.91006	-0.00072	0.02380	-0.00119	-0.00025	2.90362	-0.00362	0.00362	0.00580
Mean	1.90397	-0.00131	0.02501	0.00035	0.00174	2.90750	0.00010	-0.00035	0.00514
%RSD	0.45234	63.32880	6.83948	619.56992	161.93583	0.18882	5069.48327	1587.99140	17.90102

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	5.47139	-0.00220	0.27935	-0.02650	0.00850	0.00201	-0.04160	0.00097	0.00054
#2	5.50338	-0.00177	0.28052	-0.02614	0.00838	-0.00112	-0.03805	0.00027	0.00266
Mean	5.48739	-0.00199	0.27993	-0.02632	0.00844	0.00044	-0.03982	0.00062	0.00160
%RSD	0.41224	15.22340	0.29535	0.98271	1.01858	498.66665	6.30233	79.66884	93.91194

	Zr ppm	Pb calc	Se calc
#1	0.00035	0.00312	0.00156
#2	0.00026	-0.00056	0.00507
Mean	0.00031	0.00128	0.00331
%RSD	20.93898	203.84160	74.94923

Method : Paragon File : 111117A
 SampleId1 : 1111185-25 SampleId2 :
 Analysis commenced : 11/17/2011 17:03:41
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/18/2011 12:18:56
 [SAMPLE]

Position : TUBE53

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00081	0.00761	-0.00351	0.01681	0.04605	0.00019	-0.00504	40.90848	0.00026
#2	-0.00074	0.00806	0.00817	0.01690	0.04563	0.00017	0.00122	40.85202	0.00060
Mean	-0.00078	0.00784	0.00233	0.01686	0.04584	0.00018	-0.00191	40.88025	0.00043
%RSD	6.35280	4.08914	354.65011	0.37775	0.64508	9.32545	232.06266	0.09766	54.88639

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00095	-0.00143	-0.00336	0.50684	2.46196	0.00159	11.90072	0.25290	-0.00300
#2	-0.00042	-0.00113	-0.00288	0.50751	2.45576	0.00159	11.88589	0.25280	-0.00355
Mean	-0.00068	-0.00128	-0.00312	0.50718	2.45886	0.00159	11.89331	0.25285	-0.00328
%RSD	55.06330	16.79513	10.96304	0.09269	0.17832	0.00000	0.08820	0.02737	11.89241

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	1.87037	-0.00270	-0.01329	-0.00070	0.00192	3.56345	-0.00236	-0.01413	0.00344
#2	1.86165	-0.00208	-0.01141	0.00004	-0.00201	3.60614	-0.00546	0.00500	0.00424
Mean	1.86601	-0.00239	-0.01235	-0.00033	-0.00005	3.58479	-0.00391	-0.00456	0.00384
%RSD	0.33043	18.42836	10.77195	159.31728	5940.08767	0.84202	56.08287	296.51697	14.74507

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	4.64497	-0.00048	0.25441	-0.02507	-0.00252	0.00043	-0.03455	-0.00132	-0.00280
#2	4.63251	-0.00261	0.25354	-0.01851	-0.00247	0.00344	-0.03810	0.00027	-0.00159
Mean	4.63874	-0.00155	0.25397	-0.02179	-0.00250	0.00194	-0.03633	-0.00053	-0.00219
%RSD	0.18997	97.75980	0.24201	21.27132	1.25223	110.03010	6.91121	212.75754	39.12406

	Zr ppm	Pb calc	Se calc
#1	0.00011	0.00105	-0.00241
#2	-0.00008	-0.00133	0.00450
Mean	0.00001	-0.00014	0.00104
%RSD	934.59422	1189.41986	467.74670

Method : Paragon

File : 111117A

Printed : 11/18/2011 12:18:57

SampleId1 : 1111185-26

SampleId2 :

[SAMPLE]

Analysis commenced : 11/17/2011 17:05:33

Dilution ratio : 1.00000 to 1.00000 Tray :

Position : TUBE54

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00208	0.04976	0.00318	0.01375	0.02927	0.00025	-0.00029	32.62084	-0.00004
#2	-0.00095	0.04882	-0.00035	0.01420	0.02901	0.00023	-0.00417	32.63929	-0.00019
Mean	-0.00152	0.04929	0.00142	0.01398	0.02914	0.00024	-0.00223	32.63006	-0.00012
%RSD	52.58141	1.35055	176.15196	2.27824	0.63418	6.18017	123.27093	0.03999	89.01047

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
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	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00136	-0.00089	-0.00264	0.02051	2.15666	0.00076	11.37148	0.00015	-0.00171
#2	-0.00105	-0.00090	-0.00204	0.02051	2.14936	0.00075	11.37518	0.00025	-0.00015
Mean	-0.00120	-0.00090	-0.00234	0.02051	2.15301	0.00075	11.37333	0.00020	-0.00093
%RSD	17.86133	0.29863	17.99480	0.00000	0.23960	1.40852	0.02305	34.04540	118.13947

	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	2.28419	-0.00329	0.00230	-0.00293	0.00176	5.07640	-0.00151	-0.01128	0.00084
#2	2.28065	-0.00296	0.00015	-0.00045	-0.00090	5.04926	0.00145	0.00196	0.00224
Mean	2.28242	-0.00312	0.00122	-0.00169	0.00043	5.06283	-0.00003	-0.00466	0.00154
%RSD	0.10965	7.46682	124.31641	103.74250	441.85295	0.37914	7641.04919	200.81742	64.32198

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	3.58100	-0.00048	0.21839	-0.02070	-0.00160	0.00192	-0.03688	-0.00011	-0.00250
#2	3.57602	-0.00261	0.21869	-0.02577	-0.00155	0.00355	-0.02978	-0.00062	-0.00159
Mean	3.57851	-0.00155	0.21854	-0.02323	-0.00157	0.00273	-0.03333	-0.00036	-0.00204
%RSD	0.09851	97.69252	0.09695	15.43679	2.48331	42.10428	15.06201	99.37216	31.52327

	Zr	Pb	Se
	ppm	calc	calc
#1	0.00016	0.00019	-0.00319
#2	0.00071	-0.00075	0.00215
Mean	0.00043	-0.00028	-0.00052
%RSD	88.18002	240.20181	721.71809

Method : Paragon File : 111117A
SampleId1 : 1111185-27 SampleId2 :
Analysis commenced : 11/17/2011 17:07:23
Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/18/2011 12:18:57
[SAMPLE]
Position : TUBE55

Final concentrations

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00128	0.01825	0.00014	0.01258	0.02901	0.00031	0.00360	32.78504	0.00002
#2	0.00012	0.01383	-0.00083	0.01492	0.02896	0.00030	-0.00266	32.80850	-0.00006
Mean	-0.00058	0.01604	-0.00035	0.01375	0.02898	0.00031	0.00047	32.79677	-0.00002
%RSD	170.90422	19.50122	197.87227	12.04082	0.12752	1.78960	945.63903	0.05058	284.73891

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00036	-0.00083	-0.00275	-0.01039	2.15775	0.00077	11.41545	-0.00024	-0.00116
#2	0.00009	-0.00039	-0.00228	-0.01013	2.15921	0.00077	11.43346	-0.00024	-0.00116
Mean	-0.00014	-0.00061	-0.00251	-0.01026	2.15848	0.00077	11.42445	-0.00024	-0.00116
%RSD	237.17068	50.47820	13.39562	1.82779	0.04780	0.46034	0.11148	0.00000	0.00000

	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm

#1	2.26679	-0.00237	-0.02054	-0.00473	-0.00085	5.02211	-0.00375	-0.01392	0.00083
#2	2.26499	-0.00266	-0.00711	-0.00044	-0.00058	5.00660	-0.00123	-0.00458	-0.00087
Mean	2.26589	-0.00252	-0.01383	-0.00258	-0.00072	5.01435	-0.00249	-0.00925	-0.00002
%RSD	0.05640	8.23055	68.71744	117.11968	26.59818	0.21875	71.65850	71.40404	6989.61381

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	3.54014	-0.00774	0.21942	-0.01896	-0.00257	-0.00088	-0.04130	-0.00067	-0.00159
#2	3.53574	-0.00090	0.21936	-0.02088	-0.00244	0.00202	-0.03597	-0.00011	-0.00037
Mean	3.53794	-0.00432	0.21939	-0.01992	-0.00251	0.00057	-0.03864	-0.00039	-0.00098
%RSD	0.08800	111.83060	0.01931	6.82299	3.74012	358.43077	9.74539	100.36205	87.58443

	Zr ppm	Pb calc	Se calc
#1	-0.00013	-0.00214	-0.00408
#2	0.00052	-0.00054	-0.00210
Mean	0.00020	-0.00134	-0.00309
%RSD	230.60355	84.81114	45.16277

Method : Paragon

File : 111117A

Printed : 11/18/2011 12:18:57

SampleId1 : 1111185-28

SampleId2 :

[SAMPLE]

Analysis commenced : 11/17/2011 17:09:14

Dilution ratio : 1.00000 to 1.00000 Tray :

Position : TUBE56

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00115	0.06078	-0.00169	0.01258	0.02843	0.00039	-0.00028	30.37076	-0.00021
#2	-0.00095	0.06685	0.00002	0.01285	0.02854	0.00036	-0.00244	30.32021	-0.00004
Mean	-0.00105	0.06382	-0.00083	0.01271	0.02849	0.00038	-0.00136	30.34549	-0.00013
%RSD	13.84969	6.72689	144.33192	1.50249	0.25949	4.82790	111.91626	0.11778	91.56166

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00082	-0.00130	-0.00276	0.05036	2.18730	0.00097	11.76721	0.00103	-0.00116
#2	-0.00113	-0.00076	-0.00179	0.05129	2.17344	0.00093	11.77304	0.00103	0.00012
Mean	-0.00098	-0.00103	-0.00228	0.05082	2.18037	0.00095	11.77013	0.00103	-0.00052
%RSD	22.01411	37.15798	30.00496	1.29208	0.44952	2.59683	0.03501	0.00000	174.43731

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	2.20867	-0.00336	-0.01248	-0.00151	0.00175	5.20825	0.00005	-0.00987	-0.00076
#2	2.20822	-0.00292	-0.00657	-0.00267	-0.00140	5.20049	-0.00388	-0.00972	0.00085
Mean	2.20844	-0.00314	-0.00953	-0.00209	0.00018	5.20437	-0.00192	-0.00980	0.00005
%RSD	0.01446	9.89769	43.88249	39.01693	1269.65307	0.10537	144.74173	1.08080	2509.84159

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	3.35000	0.00337	0.22123	-0.01600	-0.00161	0.00252	-0.03069	-0.00043	-0.00007

#2	3.35353	-0.00091	0.22158	-0.01722	-0.00189	0.00031	-0.03779	-0.00010	-0.00037
Mean	3.35176	0.00123	0.22141	-0.01661	-0.00175	0.00141	-0.03424	-0.00027	-0.00022
%RSD	0.07450	245.39206	0.11005	5.21018	11.16211	110.49140	14.66384	86.86887	96.94749

	Zr ppm	Pb calc	Se calc
#1	0.00011	0.00066	-0.00379
#2	0.00012	-0.00182	-0.00267
Mean	0.00012	-0.00058	-0.00323
%RSD	9.58523	303.42136	24.47693

Method : Paragon File : 111117A
 SampleId1 : 1111185-29 SampleId2 :
 Analysis commenced : 11/17/2011 17:11:04
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/18/2011 12:18:57

[SAMPLE]

Position : TUBE57

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00041	0.01784	0.00026	0.01186	0.02880	0.00035	-0.00137	29.85545	0.00011
#2	-0.00048	0.01803	0.00391	0.01366	0.02854	0.00034	-0.00655	29.76533	0.00023
Mean	-0.00045	0.01793	0.00209	0.01276	0.02867	0.00035	-0.00396	29.81039	0.00017
%RSD	11.08678	0.73905	123.75580	9.98126	0.64458	2.27692	92.56249	0.21376	52.92716

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00075	-0.00096	-0.00276	-0.00960	2.15118	0.00084	11.59715	-0.00033	-0.00328
#2	-0.00158	-0.00127	-0.00228	-0.01013	2.13988	0.00084	11.57119	-0.00033	-0.00126
Mean	-0.00116	-0.00112	-0.00252	-0.00986	2.14553	0.00084	11.58417	-0.00033	-0.00227
%RSD	50.86235	19.41389	13.33125	3.80305	0.37267	0.00000	0.15845	0.00000	63.04463

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	2.18315	-0.00160	-0.01248	-0.00603	0.00056	5.11130	-0.00349	-0.01112	0.00073
#2	2.18134	-0.00233	-0.01033	-0.00194	-0.00141	5.10742	-0.00248	-0.01313	0.00975
Mean	2.18225	-0.00197	-0.01141	-0.00398	-0.00043	5.10936	-0.00299	-0.01212	0.00524
%RSD	0.05854	26.32074	13.32585	72.66709	328.13178	0.05367	23.76349	11.76487	121.61467

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	3.23883	-0.00518	0.21809	-0.01621	-0.00231	-0.00482	-0.03597	-0.00086	-0.00219
#2	3.23707	-0.00475	0.21734	-0.01284	-0.00233	-0.00226	-0.02887	-0.00049	-0.00280
Mean	3.23795	-0.00496	0.21771	-0.01453	-0.00232	-0.00354	-0.03242	-0.00067	-0.00250
%RSD	0.03843	6.08715	0.24328	16.39007	0.67385	51.03003	15.48468	39.12671	17.18493

	Zr ppm	Pb calc	Se calc
#1	-0.00009	-0.00163	-0.00321
#2	-0.00054	-0.00159	0.00213

Mean -0.00031 -0.00161 -0.00054UNDGREEN
 %RSD 100.57662 2.06035 697.92110

Method : Paragon File : 111117A
 SampleId1 : 1111185-30 SampleId2 :
 Analysis commenced : 11/17/2011 17:12:55
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/18/2011 12:18:57
 [SAMPLE]
 Position : TUBE58

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00094	0.14193	0.00136	0.01078	0.02624	0.00029	-0.01237	30.63320	0.00019
#2	-0.00141	0.13801	0.00245	0.01186	0.02608	0.00023	-0.00114	30.62196	0.00016
Mean	-0.00117	0.13997	0.00190	0.01132	0.02616	0.00026	-0.00676	30.62758	0.00017
%RSD	28.28222	1.98197	40.68711	6.75114	0.42383	17.54346	117.47258	0.02594	12.07641

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00160	-0.00079	-0.00155	0.18812	2.09282	0.00044	11.89437	0.00904	-0.00346
#2	-0.00137	-0.00153	-0.00263	0.18732	2.09209	0.00046	11.89702	0.00924	-0.00208
Mean	-0.00148	-0.00116	-0.00209	0.18772	2.09246	0.00045	11.89569	0.00914	-0.00277
%RSD	10.87384	45.21626	36.67989	0.30005	0.02465	3.17425	0.01575	1.51133	35.15010

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	2.21213	-0.00376	0.00445	-0.00421	0.00145	5.46417	-0.00476	-0.00866	0.00709
#2	2.21206	-0.00146	0.00552	-0.00401	0.00433	5.40601	-0.00347	-0.01504	0.00398
Mean	2.21209	-0.00261	0.00499	-0.00411	0.00289	5.43509	-0.00411	-0.01185	0.00553
%RSD	0.00241	62.54069	15.24738	3.36761	70.50975	0.75667	22.06240	38.06693	39.69273

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	3.12565	-0.00006	0.21123	-0.02067	0.00223	-0.00091	-0.04765	0.00011	0.01025
#2	3.12433	-0.00219	0.21182	-0.02112	0.00233	0.00118	-0.04498	-0.00008	0.01147
Mean	3.12499	-0.00112	0.21153	-0.02090	0.00228	0.00013	-0.04631	0.00002	0.01086
%RSD	0.02979	134.45591	0.20031	1.52222	3.07991	1124.39875	4.06582	767.35412	7.90717

	Zr ppm	Pb calc	Se calc
#1	0.00003	-0.00044	0.00184
#2	-0.00007	0.00155	-0.00235
Mean	-0.00002	0.00056	-0.00026
%RSD	376.17111	251.73467	1162.49719

Method : Paragon File : 111117A
 SampleId1 : 1111185-31 SampleId2 :
 Analysis commenced : 11/17/2011 17:14:45
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/18/2011 12:18:58
 [SAMPLE]
 Position : TUBE59

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00148	0.00806	0.00513	0.01222	0.02436	0.00019	-0.00482	29.93217	0.00029
#2	-0.00060	0.00715	-0.00083	0.01240	0.02420	0.00014	-0.00375	29.89381	0.00042
Mean	-0.00104	0.00761	0.00215	0.01231	0.02428	0.00017	-0.00428	29.91299	0.00035
%RSD	59.50749	8.41550	196.40651	1.03464	0.45668	19.84255	17.75166	0.09068	25.49947

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00030	-0.00143	-0.00239	-0.00496	2.05817	0.00032	11.67662	-0.00024	-0.00355
#2	-0.00090	-0.00055	-0.00263	-0.00429	2.06765	0.00030	11.68827	-0.00024	-0.00061
Mean	-0.00060	-0.00099	-0.00251	-0.00463	2.06291	0.00031	11.68245	-0.00024	-0.00208
%RSD	71.71360	62.75874	6.51556	10.13882	0.32508	4.62879	0.07055	0.00000	99.78962

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	2.20995	-0.00343	-0.01114	-0.00122	0.00221	5.35172	-0.00391	-0.01797	-0.00117
#2	2.21364	-0.00131	-0.00926	-0.00297	0.00053	5.34784	-0.00642	-0.00942	0.00454
Mean	2.21179	-0.00237	-0.01020	-0.00209	0.00137	5.34978	-0.00516	-0.01369	0.00169
%RSD	0.11793	63.35886	13.04277	59.15225	86.75833	0.05125	34.40973	44.15779	239.34831

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	2.95345	-0.00090	0.20814	-0.01991	-0.00207	0.01130	-0.03864	-0.00053	0.00266
#2	2.95289	-0.00261	0.20826	-0.01791	-0.00242	0.00225	-0.05018	-0.00039	0.00266
Mean	2.95317	-0.00176	0.20820	-0.01891	-0.00224	0.00678	-0.04441	-0.00046	0.00266
%RSD	0.01331	68.67914	0.04070	7.50229	11.15354	94.46351	18.37168	21.37815	0.00000

	Zr ppm	Pb calc	Se calc
#1	0.00054	0.00107	-0.00676
#2	0.00035	-0.00064	-0.00011
Mean	0.00044	0.00022	-0.00343
%RSD	30.22684	555.57048	137.05131

Method : Paragon File : 111117A
 SampleId1 : 1111185-32 SampleId2 :
 Analysis commenced : 11/17/2011 17:16:35
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/18/2011 12:18:58
 [SAMPLE]

Position : TUBE60

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00155	0.02939	0.00099	0.01087	0.02472	0.00019	-0.00244	30.31741	0.00032
#2	0.00005	0.03237	0.00391	0.01249	0.02493	0.00024	-0.00719	30.27934	0.00010
Mean	-0.00075	0.03088	0.00245	0.01168	0.02483	0.00021	-0.00482	30.29837	0.00021
%RSD	150.33390	6.81289	84.25781	9.81436	0.59544	17.05328	69.68305	0.08883	72.29776

ted: 11/18/2011 12:19:04 User: MIKE LUNDGREEN

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00174	-0.00127	-0.00264	0.00751	2.11070	0.00044	11.73860	0.00006	-0.00263
#2	-0.00144	-0.00087	-0.00204	0.00725	2.10413	0.00042	11.73119	0.00015	-0.00061
Mean	-0.00159	-0.00107	-0.00234	0.00738	2.10741	0.00043	11.73489	0.00011	-0.00162
%RSD	13.54550	26.56512	18.02805	2.54226	0.22030	2.47803	0.04469	65.65806	88.01271

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	2.18082	-0.00244	-0.01678	-0.00011	0.00317	5.32846	-0.00446	-0.00178	0.00294
#2	2.18157	-0.00189	-0.00872	-0.00208	0.00161	5.32458	-0.00403	-0.00987	0.00124
Mean	2.18119	-0.00217	-0.01275	-0.00110	0.00239	5.32652	-0.00425	-0.00582	0.00209
%RSD	0.02440	17.90748	44.70614	126.75871	46.15215	0.05148	7.23506	98.25393	57.62467

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	3.01596	-0.00219	0.20904	-0.01673	-0.00173	0.00122	-0.03066	-0.00020	0.00114
#2	3.01684	-0.00774	0.20896	-0.02097	-0.00163	-0.00399	-0.02622	-0.00053	0.00206
Mean	3.01640	-0.00496	0.20900	-0.01885	-0.00168	-0.00139	-0.02844	-0.00037	0.00160
%RSD	0.02063	79.11800	0.02534	15.91789	4.17659	266.21517	11.03276	62.80805	40.24799

	Zr ppm	Pb calc	Se calc
#1	-0.00022	0.00207	0.00137
#2	0.00039	0.00038	-0.00246
Mean	0.00009	0.00123	-0.00054
%RSD	489.15379	97.70499	497.30183

Method : Paragon File : 111117A
 SampleId1 : CCV SampleId2 :
 Analysis commenced : 11/17/2011 17:19:06
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/18/2011 12:18:58
 [CV]

Position : STD6

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	0.21304	50.47812	0.49550	0.98519	0.98144	0.46808	0.51303	48.75058	0.51458
#2	0.21361	50.61473	0.49683	0.98681	0.98802	0.46931	0.51219	48.81099	0.51542
Mean	0.21333	50.54642	0.49617	0.98600	0.98473	0.46870	0.51261	48.78079	0.51500
%RSD	0.18946	0.19111	0.19030	0.11612	0.47215	0.18440	0.11558	0.08757	0.11575

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.48460	0.97390	0.99923	19.81540	51.00285	0.52699	49.37023	0.94954	0.97601
#2	0.48530	0.97644	1.00424	19.87301	51.07105	0.52815	49.50042	0.95200	0.97831
Mean	0.48495	0.97517	1.00174	19.84420	51.03695	0.52757	49.43533	0.95077	0.97716
%RSD	0.10068	0.18417	0.35393	0.20528	0.09448	0.15598	0.18622	0.18281	0.16638

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	48.23096	0.95169	4.80637	0.96351	0.96101	5.11130	0.46185	1.02866	0.98825
#2	48.30411	0.95055	4.84608	0.96147	0.95674	5.08028	0.46338	1.02775	0.98232
Mean	48.26753	0.95112	4.82622	0.96249	0.95888	5.09579	0.46261	1.02821	0.98529
%RSD	0.10717	0.08432	0.58183	0.15017	0.31482	0.43049	0.23529	0.06257	0.42584

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	4.84023	0.97705	0.51724	0.30618	0.46699	0.48661	4.81855	0.48474	0.91614
#2	4.86733	0.97235	0.52021	0.30272	0.46871	0.49660	4.84597	0.48558	0.91614
Mean	4.85378	0.97470	0.51872	0.30445	0.46785	0.49161	4.83226	0.48516	0.91614
%RSD	0.39483	0.34057	0.40559	0.80301	0.26051	1.43756	0.40115	0.12367	0.00000

	Zr ppm	Pb calc	Se calc
#1	0.96489	0.96184	1.00171
#2	0.96759	0.95832	0.99745
Mean	0.96624	0.96008	0.99958
%RSD	0.19800	0.25986	0.30141

Method : Paragon

File : 111117A

Printed : 11/18/2011 12:18:58

SampleId1 : CCB

SampleId2 :

[CB]

Analysis commenced : 11/17/2011 17:21:01

Dilution ratio : 1.00000 to 1.00000 Tray :

Position : STD2

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00021	0.01305	-0.00229	-0.00399	-0.00094	0.00017	-0.00634	-0.05023	0.00091
#2	-0.00062	0.02191	0.00245	-0.00255	-0.00083	0.00017	-0.00029	-0.04993	0.00064
Mean	-0.00041	0.01748	0.00008	-0.00327	-0.00089	0.00017	-0.00331	-0.05008	0.00077
%RSD	70.31850	35.83581	4301.83477	31.15520	8.34416	0.10278	129.19268	0.42627	24.92237

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00117	-0.00126	-0.00311	-0.00748	-0.31025	-0.00307	-0.04054	-0.00082	-0.00199
#2	-0.00079	-0.00056	-0.00276	-0.00734	-0.29894	-0.00308	-0.04107	-0.00073	-0.00254
Mean	-0.00098	-0.00091	-0.00293	-0.00741	-0.30460	-0.00308	-0.04080	-0.00077	-0.00227
%RSD	27.53248	54.36892	8.48297	1.26559	2.62505	0.34472	0.91485	8.92466	17.19398

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	0.12660	-0.00281	-0.01060	-0.00369	0.00075	-0.02926	-0.00277	-0.00350	0.00624
#2	0.12645	-0.00318	-0.00523	-0.00290	0.00065	-0.02926	-0.00222	-0.00100	0.00364
Mean	0.12652	-0.00299	-0.00791	-0.00330	0.00070	-0.02926	-0.00250	-0.00225	0.00494
%RSD	0.08339	8.65175	48.02101	16.97040	10.17206	0.00000	15.57507	78.57424	37.26855

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
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	ppm								
#1	-0.02803	-0.00304	-0.00335	0.00065	-0.00216	-0.00610	-0.04396	-0.00114	-0.00280
#2	-0.02498	-0.00133	-0.00332	-0.00167	-0.00216	-0.00122	-0.03331	-0.00091	-0.00371
Mean	-0.02651	-0.00219	-0.00334	-0.00051	-0.00216	-0.00366	-0.03864	-0.00102	-0.00326
%RSD	8.12942	55.26931	0.63326	321.05302	0.00000	94.25173	19.49029	16.11372	19.77111

	Zr ppm	Pb calc	Se calc
#1	0.00027	-0.00073	0.00300
#2	0.00058	-0.00053	0.00209
Mean	0.00043	-0.00063	0.00255
%RSD	50.19990	22.02292	25.12937

Method : Paragon File : 111117A
 SampleId1 : 1111185-33 SampleId2 :
 Analysis commenced : 11/17/2011 17:22:57
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/18/2011 12:18:58
 [SAMPLE]
 Position : TUBE61

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00041	-0.00227	-0.00169	0.01249	0.02457	0.00011	-0.00569	29.84329	0.00023
#2	-0.00083	0.00562	-0.00169	0.01294	0.02472	0.00011	-0.00201	29.70359	0.00032
Mean	-0.00062	0.00168	-0.00169	0.01271	0.02465	0.00011	-0.00385	29.77344	0.00027
%RSD	46.97711	332.69728	0.00000	2.50415	0.44990	3.57358	67.53317	0.33177	22.61990

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00159	-0.00109	-0.00263	-0.00933	2.08261	0.00039	11.63477	-0.00024	-0.00254
#2	-0.00106	-0.00114	-0.00253	-0.00761	2.07714	0.00039	11.64483	-0.00024	-0.00171
Mean	-0.00132	-0.00112	-0.00258	-0.00847	2.07987	0.00039	11.63980	-0.00024	-0.00213
%RSD	28.49573	2.69986	2.93359	14.39185	0.18602	0.00000	0.06115	0.00000	27.46029

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	2.18390	-0.00157	-0.01598	-0.00667	0.00052	5.31295	-0.00404	-0.00987	0.00063
#2	2.17931	-0.00080	-0.01463	-0.00049	0.00165	5.33233	-0.00094	-0.00644	0.00164
Mean	2.18161	-0.00118	-0.01530	-0.00358	0.00108	5.32264	-0.00249	-0.00816	0.00113
%RSD	0.14883	46.07265	6.20806	122.02863	73.75118	0.25756	87.84682	29.79760	62.41283

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	2.97044	-0.00560	0.20811	-0.02168	-0.00237	0.00202	-0.04041	-0.00039	0.00023
#2	2.96427	-0.00390	0.20733	-0.02283	-0.00230	0.00412	-0.02355	-0.00049	-0.00128
Mean	2.96735	-0.00475	0.20772	-0.02225	-0.00234	0.00307	-0.03198	-0.00044	-0.00053
%RSD	0.14706	25.44093	0.26516	3.63420	2.34172	48.31500	37.28080	14.91467	204.44054

	Zr ppm	Pb calc	Se calc
#1	0.00027	-0.00073	0.00300
#2	0.00058	-0.00053	0.00209
Mean	0.00043	-0.00063	0.00255
%RSD	50.19990	22.02292	25.12937

#1	0.00138	-0.00188	-0.00287	UNDGREEN
#2	0.00123	0.00094	-0.00105	
Mean	0.00131	-0.00047	-0.00196	
%RSD	7.71875	423.03612	65.43276	

Method : Paragon File : 111117A Printed : 11/18/2011 12:18:59
SampleId1 : 1111185-34 SampleId2 : [SAMPLE]
Analysis commenced : 11/17/2011 17:24:50
Dilution ratio : 1.00000 to 1.00000 Tray : Position : TUBE62

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00069	0.00511	0.00233	-0.00399	-0.00125	0.00004	-0.00093	-0.06533	0.00009
#2	-0.00007	-0.00348	0.00014	-0.00372	-0.00120	-0.00003	-0.00115	-0.06442	0.00030
Mean	-0.00038	0.00082	0.00123	-0.00386	-0.00123	0.00000	-0.00104	-0.06488	0.00020
%RSD	114.12414	743.95477	125.50747	4.95474	3.01556	1384.18997	14.95524	0.98718	75.41823

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00132	-0.00097	-0.00313	-0.01504	-0.32046	-0.00325	-0.05954	-0.00112	-0.00015
#2	-0.00018	-0.00099	-0.00263	-0.01424	-0.31645	-0.00323	-0.05796	-0.00102	-0.00245
Mean	-0.00075	-0.00098	-0.00288	-0.01464	-0.31846	-0.00324	-0.05875	-0.00107	-0.00130
%RSD	107.73099	1.60361	12.20463	3.84385	0.89093	0.43657	1.90607	6.47351	124.70926

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	0.11548	-0.00072	-0.02189	-0.00164	-0.00165	-0.01760	-0.00093	-0.00597	-0.00027
#2	0.11593	-0.00189	-0.01705	0.00182	-0.00007	-0.02537	-0.00081	-0.00225	-0.00428
Mean	0.11571	-0.00131	-0.01947	0.00009	-0.00086	-0.02149	-0.00087	-0.00411	-0.00227
%RSD	0.27354	63.32880	17.56753	2794.00686	129.25984	25.58527	9.82390	63.95945	124.68513

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	-0.02499	-0.00219	-0.00356	-0.00604	-0.00223	0.00122	-0.02177	-0.00151	-0.00128
#2	-0.02555	-0.00090	-0.00355	-0.00808	-0.00237	0.00596	-0.04307	-0.00100	-0.00280
Mean	-0.02527	-0.00155	-0.00355	-0.00706	-0.00230	0.00359	-0.03242	-0.00126	-0.00204
%RSD	1.56972	58.65359	0.29732	20.41922	4.41153	93.40797	46.45749	28.84488	52.53879

	Zr ppm	Pb calc	Se calc
#1	-0.00003	-0.00165	-0.00217
#2	0.00017	0.00056	-0.00360
Mean	0.00007	-0.00054	-0.00288
%RSD	194.78310	285.72394	35.16671

Method : Paragon File : 111117A Printed : 11/18/2011 12:18:59
SampleId1 : 1111185-35 SampleId2 : [SAMPLE]
Analysis commenced : 11/17/2011 17:26:41

Dilution ratio : 1.00000 to 1.00000 Tray :

Position : TUBE63

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00141	0.00958	0.00002	-0.00246	-0.00094	0.00016	-0.00504	-0.06503	0.00000
#2	-0.00048	0.01393	-0.00193	-0.00372	-0.00094	0.00015	-0.01152	-0.06261	0.00001
Mean	-0.00094	0.01175	-0.00096	-0.00309	-0.00094	0.00015	-0.00828	-0.06382	0.00001
%RSD	69.11698	26.19781	143.96156	28.84970	0.00000	4.47618	55.29392	2.67608	158.00148
	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00185	-0.00143	-0.00311	-0.00986	-0.29530	-0.00315	-0.06430	-0.00121	-0.00282
#2	-0.00064	-0.00110	-0.00240	-0.01026	-0.28180	-0.00313	-0.05902	-0.00102	-0.00107
Mean	-0.00124	-0.00126	-0.00275	-0.01006	-0.28855	-0.00314	-0.06166	-0.00112	-0.00194
%RSD	69.22379	18.41601	18.23716	2.79589	3.30739	0.45048	6.05436	12.38031	63.44721
	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	0.11988	-0.00299	-0.01410	-0.00100	-0.00030	-0.02149	-0.00179	-0.00630	0.00244
#2	0.12055	-0.00164	-0.01033	-0.00138	0.00051	-0.02537	-0.00010	0.01067	0.00424
Mean	0.12022	-0.00232	-0.01221	-0.00119	0.00011	-0.02343	-0.00095	0.00219	0.00334
%RSD	0.39491	41.37743	21.78092	22.67189	537.27305	11.73145	126.94873	548.95076	38.18374
	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	-0.02453	-0.00390	-0.00358	-0.00335	-0.00221	0.00039	-0.04574	-0.00095	-0.00128
#2	-0.02381	-0.00219	-0.00349	-0.00487	-0.00226	0.00690	-0.03242	-0.00035	-0.00250
Mean	-0.02417	-0.00304	-0.00353	-0.00411	-0.00224	0.00365	-0.03908	-0.00065	-0.00189
%RSD	2.09767	39.74148	1.79526	26.22232	1.74705	126.10336	24.08804	65.86506	45.40465
	Zr ppm	Pb calc	Se calc						
#1	-0.00048	-0.00053	-0.00047						
#2	0.00036	-0.00012	0.00638						
Mean	-0.00006	-0.00033	0.00295						
%RSD	1041.69209	90.31959	164.02190						

Method : Paragon File : 111117A

Printed : 11/18/2011 12:18:59

SampleId1 : 1111205-1 SampleId2 :

[SAMPLE]

Analysis commenced : 11/17/2011 17:28:33

Dilution ratio : 1.00000 to 1.00000 Tray :

Position : TUBE64

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00050	-0.03345	0.01072	3.19130	0.01197	-0.00041	0.00338	257.42157	-0.00044
#2	0.00004	-0.03241	0.00707	3.19426	0.01197	-0.00042	-0.00180	258.35875	0.00019

Mean	-0.00023	-0.03293	0.00890	3.19278	0.01197	-0.00042	0.00079	257.89016	-0.00013
%RSD	165.05454	2.22483	29.00254	0.06558	0.00000	2.51597	463.13818	0.25696	353.62570
	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	0.00022	-0.00103	-0.00312	-0.01278	399.08884	0.16875	888.82361	0.00709	0.00389
#2	-0.00061	-0.00093	-0.00216	-0.01318	399.35570	0.16907	893.28326	0.00729	0.00444
Mean	-0.00020	-0.00098	-0.00264	-0.01298	399.22227	0.16891	891.05343	0.00719	0.00416
%RSD	303.43389	7.40351	25.81843	2.16740	0.04727	0.13540	0.35390	1.92213	9.36054
	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	447.86288	-0.00025	0.07621	-0.00158	-0.00127	499.52576	0.00290	-0.01111	-0.00097
#2	444.51344	-0.00094	0.07486	0.00325	-0.00177	499.97706	-0.00075	-0.01158	-0.00007
Mean	446.18816	-0.00059	0.07554	0.00084	-0.00152	499.75141	0.00107	-0.01135	-0.00052
%RSD	0.53081	82.77860	1.25809	407.81907	23.18622	0.06386	241.06424	2.92715	122.88969
	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	1.80598	0.00252	5.10624	-0.06799	-0.00393	0.00805	-0.03065	0.00300	-0.00068
#2	1.81198	0.00209	5.11689	-0.06373	-0.00360	0.01084	-0.03420	0.00333	0.00054
Mean	1.80898	0.00230	5.11157	-0.06586	-0.00377	0.00945	-0.03242	0.00317	-0.00007
%RSD	0.23466	13.13844	0.14737	4.57149	6.22322	20.81849	7.74186	7.27375	1233.12806
	Zr	Pb	Se						
	ppm	calc	calc						
#1	0.00438	-0.00137	-0.00435						
#2	0.00409	-0.00010	-0.00390						
Mean	0.00424	-0.00074	-0.00412						
%RSD	4.81696	122.51113	7.62782						

Method : Paragon File : 111117A
SampleId1 : 1111205-2 SampleId2 :
Analysis commenced : 11/17/2011 17:30:28
Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/18/2011 12:18:59
[SAMPLE]

Position : TUBE65

Final concentrations

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00109	-0.02452	0.00476	3.15523	0.01234	-0.00030	-0.00353	256.55887	-0.00049
#2	-0.00043	-0.02304	0.00561	3.14921	0.01218	-0.00036	-0.00288	256.70054	0.00050
Mean	-0.00076	-0.02378	0.00519	3.15222	0.01226	-0.00033	-0.00320	256.62971	0.00001
%RSD	61.17191	4.37810	11.60777	0.13487	0.90445	13.07841	14.37771	0.03903	9517.46032
	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00039	-0.00157	-0.00264	-0.00973	394.32798	0.16638	881.06803	0.01198	0.00435
#2	-0.00077	-0.00134	-0.00277	-0.00960	393.32242	0.16543	880.45735	0.01178	0.00664
Mean	-0.00058	-0.00145	-0.00270	-0.00967	393.82520	0.16590	880.76269	0.01188	0.00549

%RSD	46.81512	11.13377	3.39839	0.97033	0.18055	0.40724	0.04903	1.16327	29.54914
	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	443.81398	0.00052	0.07486	-0.00163	-0.00117	495.88330	-0.00286	-0.00847	-0.00367
#2	447.06180	-0.00014	0.08992	-0.00275	-0.00439	496.13105	-0.00157	-0.00006	0.00134
Mean	445.43789	0.00019	0.08239	-0.00219	-0.00278	496.00718	-0.00222	-0.00427	-0.00117
%RSD	0.51557	241.52017	12.91862	36.32771	81.69838	0.03532	40.91192	139.47249	302.90482
	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	1.90266	-0.00389	5.05356	-0.06063	-0.00359	0.00527	-0.03775	0.00296	0.00145
#2	1.89783	-0.00560	5.03633	-0.05643	-0.00328	0.00458	-0.02532	0.00370	0.00023
Mean	1.90025	-0.00475	5.04494	-0.05853	-0.00344	0.00493	-0.03154	0.00333	0.00084
%RSD	0.17996	25.45448	0.24144	5.07612	6.36886	9.89109	27.85904	15.81348	102.08612
	Zr	Pb	Se						
	ppm	calc	calc						
#1	0.00307	-0.00133	-0.00527						
#2	0.00325	-0.00384	0.00087						
Mean	0.00316	-0.00258	-0.00220						
%RSD	4.05601	68.88725	197.39909						

Method : Paragon File : 111117A
SampleId1 : 1111185-4 5X SampleId2 :
Analysis commenced : 11/17/2011 17:34:24
Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/18/2011 12:19:00
[SAMPLE]

Position : TUBE66

Final concentrations

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	ppm	ppm							
#1	-0.00135	0.02879	0.00099	0.00069	0.00377	0.00036	-0.00309	8.08495	-0.00007
#2	-0.00028	0.03328	0.00050	0.00213	0.00361	0.00037	-0.00353	8.05174	0.00028
Mean	-0.00081	0.03104	0.00075	0.00141	0.00369	0.00037	-0.00331	8.06835	0.00010
%RSD	92.83951	10.21972	46.05681	72.12654	3.00681	1.73352	9.24080	0.29102	241.07407
	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm	ppm							
#1	-0.00086	-0.00157	-0.00300	0.01441	12.80527	-0.00245	1.46330	0.03034	0.00233
#2	-0.00070	-0.00106	-0.00288	0.01375	12.70752	-0.00246	1.39781	0.03025	0.00389
Mean	-0.00078	-0.00132	-0.00294	0.01408	12.75640	-0.00246	1.43055	0.03029	0.00311
%RSD	13.81081	27.14526	2.93943	3.33146	0.54185	0.43171	3.23712	0.22807	35.53845
	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	ppm	ppm							
#1	49.26784	-0.00259	-0.00200	-0.00407	0.00079	32.16046	-0.00287	-0.00863	-0.00046
#2	48.69703	-0.00146	-0.00496	-0.00239	0.00070	31.93458	-0.00132	-0.00629	0.00124
Mean	48.98243	-0.00202	-0.00348	-0.00323	0.00075	32.04752	-0.00210	-0.00746	0.00039
%RSD	0.82402	39.68912	60.06462	36.89097	8.29211	0.49840	52.40261	22.10817	310.08900

ted: 11/18/2011 12:19:04 User: MIKE LUNDGREEN

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	0.95270	-0.00304	0.01765	-0.00156	-0.00239	0.00007	-0.03155	-0.00118	0.00054
#2	0.94862	-0.00689	0.01717	-0.00564	-0.00258	-0.00039	-0.03421	-0.00113	0.00054
Mean	0.95066	-0.00496	0.01741	-0.00360	-0.00249	-0.00016	-0.03288	-0.00116	0.00054
%RSD	0.30354	54.77988	1.94297	80.19420	5.66007	203.41167	5.72426	2.83718	0.00000

	Zr ppm	Pb calc	Se calc
#1	-0.00045	-0.00083	-0.00318
#2	0.00003	-0.00033	-0.00127
Mean	-0.00021	-0.00058	-0.00222
%RSD	162.20669	61.56608	60.77786

Method : Paragon File : 111117A
 SampleId1 : 1111185-5 5X SampleId2 :
 Analysis commenced : 11/17/2011 17:36:15
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/18/2011 12:19:00
 [SAMPLE]

Position : TUBE67

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00055	0.02096	-0.00047	0.00096	0.00361	0.00037	-0.00158	8.10079	0.00005
#2	-0.00001	0.02367	-0.00229	0.00123	0.00366	0.00034	-0.00482	8.04961	0.00043
Mean	-0.00028	0.02232	-0.00138	0.00110	0.00363	0.00035	-0.00320	8.07520	0.00024
%RSD	134.87842	8.60234	93.37768	17.40797	1.01668	4.56134	71.59963	0.44816	113.92281

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00101	-0.00151	-0.00289	-0.00416	12.57293	-0.00254	1.25891	0.03132	0.00425
#2	-0.00048	-0.00177	-0.00324	-0.00456	12.51275	-0.00259	1.19184	0.03103	0.00324
Mean	-0.00074	-0.00164	-0.00306	-0.00436	12.54284	-0.00257	1.22537	0.03117	0.00375
%RSD	50.74279	11.47862	8.22290	6.45343	0.33928	1.37602	3.87034	0.66490	19.05258

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	47.81576	-0.00160	-0.01598	-0.00171	-0.00141	31.96521	-0.00328	-0.00302	0.00775
#2	47.39551	-0.00080	-0.01329	-0.00510	-0.00022	31.88480	0.00107	-0.00489	0.00294
Mean	47.60564	-0.00120	-0.01463	-0.00341	-0.00081	31.92500	-0.00110	-0.00395	0.00534
%RSD	0.62422	47.52925	12.98620	70.43346	103.83503	0.17809	278.59846	33.48917	63.63448

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	0.94657	-0.00261	0.01657	-0.00455	-0.00234	-0.00237	-0.02533	-0.00025	0.00114
#2	0.94599	-0.00731	0.01613	-0.00427	-0.00239	0.00575	-0.03065	-0.00081	0.00175
Mean	0.94628	-0.00496	0.01635	-0.00441	-0.00236	0.00169	-0.02799	-0.00053	0.00145
%RSD	0.04338	66.95456	1.93978	4.46566	1.32249	339.83264	13.45175	74.24152	29.64420

	Zr ppm	Pb calc	SeUNDGREEN calc
#1	-0.00010	-0.00151	0.00416
#2	-0.00044	-0.00184	0.00033
Mean	-0.00027	-0.00168	0.00225
%RSD	89.18015	14.06436	120.49261

Method : Paragon File : 111117A
SampleId1 : CRI SampleId2 :
Analysis commenced : 11/17/2011 17:38:06
Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/18/2011 12:19:00
[FLEXQC]

Position : STD3

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	0.02062	0.46881	0.00586	0.41144	0.40792	0.01209	0.04724	5.23792	0.01312
#2	0.02081	0.46615	0.01304	0.40973	0.40944	0.01216	0.05200	5.25310	0.01277
Mean	0.02072	0.46748	0.00945	0.41058	0.40868	0.01212	0.04962	5.24551	0.01295
%RSD	0.65078	0.40250	53.73250	0.29455	0.26293	0.39466	6.77210	0.20469	1.93246

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.10259	0.02043	0.04909	0.19967	3.85243	0.01517	5.18835	0.03113	0.01987
#2	0.10282	0.02056	0.04908	0.19980	3.85535	0.01521	5.21848	0.03103	0.01812
Mean	0.10270	0.02050	0.04908	0.19973	3.85389	0.01519	5.20341	0.03108	0.01899
%RSD	0.15892	0.45068	0.00794	0.04700	0.05354	0.16276	0.40956	0.22233	6.49594

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	4.30201	0.08165	0.18186	0.00599	0.00761	0.21174	0.11268	0.00382	0.01380
#2	4.35823	0.08308	0.19745	0.00421	0.00586	0.21562	0.11351	-0.00505	0.01119
Mean	4.33012	0.08236	0.18965	0.00510	0.00674	0.21368	0.11310	-0.00062	0.01249
%RSD	0.91802	1.22626	5.81418	24.69703	18.33305	1.28623	0.51700	1016.20326	14.74191

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	0.09521	0.10160	0.01964	0.00827	0.01861	0.01923	0.17776	0.10395	0.04699
#2	0.09768	0.10032	0.01977	0.00696	0.01846	0.02225	0.18486	0.10483	0.04699
Mean	0.09645	0.10096	0.01971	0.00761	0.01853	0.02074	0.18131	0.10439	0.04699
%RSD	1.80676	0.89743	0.48283	12.17366	0.59026	10.29324	2.76868	0.59898	0.00000

	Zr ppm	Pb calc	Se calc
#1	0.04981	0.00707	0.01047
#2	0.05104	0.00531	0.00578
Mean	0.05042	0.00619	0.00813
%RSD	1.72259	20.07859	40.79329

Method : Paragon File : 111117A

Printed : 11/18/2011 12:19:00

SampleId1 : ICSA SampleId2 :
 Analysis commenced : 11/17/2011 17:40:02
 Dilution ratio : 1.00000 to 1.00000 Tray :

[FLEXQC]
 Position : STD4

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00087	264.66674	-0.00765	-0.00282	-0.00083	0.00094	0.00015	264.71166	0.00092
#2	-0.00094	263.79802	-0.00023	-0.00381	-0.00094	0.00091	0.00879	263.71507	0.00098
Mean	-0.00090	264.23238	-0.00394	-0.00332	-0.00089	0.00093	0.00447	264.21337	0.00095
%RSD	5.57946	0.23248	133.29760	21.12829	8.34416	2.58949	136.68456	0.26671	4.30792

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.00005	-0.00216	-0.00652	107.21520	-0.32375	-0.00269	268.56863	0.00191	-0.00328
#2	0.00027	-0.00176	-0.00676	106.82364	-0.32046	-0.00272	267.72336	0.00201	-0.00337
Mean	0.00016	-0.00196	-0.00664	107.01942	-0.32211	-0.00271	268.14599	0.00196	-0.00332
%RSD	100.42680	14.34523	2.63406	0.25871	0.72068	0.65306	0.22290	3.52201	1.95467

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	0.14734	-0.00017	-0.00496	-0.00103	0.00067	0.04460	0.00144	-0.02353	0.00572
#2	0.14674	-0.00014	0.00176	-0.00755	0.00088	0.05237	-0.00109	-0.01617	0.00654
Mean	0.14704	-0.00015	-0.00160	-0.00429	0.00077	0.04848	0.00017	-0.01985	0.00613
%RSD	0.28704	16.71617	297.12419	107.40872	18.71736	11.33851	1029.13262	26.24566	9.47745

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	-0.02812	-0.00048	-0.00189	-0.04942	-0.00063	0.00897	0.00994	-0.00498	-0.00128
#2	-0.03047	-0.00262	-0.00184	-0.04760	-0.00068	0.00672	0.01908	-0.00534	-0.00584
Mean	-0.02929	-0.00155	-0.00187	-0.04851	-0.00066	0.00785	0.01451	-0.00516	-0.00356
%RSD	5.67238	97.61928	1.69949	2.65063	5.95487	20.23707	44.55200	4.86920	90.42760

	Zr ppm	Pb calc	Se calc
#1	0.00590	0.00010	-0.00402
#2	0.00542	-0.00193	-0.00102
Mean	0.00566	-0.00091	-0.00252
%RSD	6.08775	157.57580	84.25583

Method : Paragon File : 111117A
 SampleId1 : ICSAB SampleId2 :
 Analysis commenced : 11/17/2011 17:41:59
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/18/2011 12:19:00
 [FLEXQC]
 Position : STD5

Final concentrations

Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
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#1	0.20472	211.12007	0.10268	1.00246	0.49818	0.47144	0.52340	264.45569	1.03807
#2	0.20517	210.95554	0.09453	1.00147	0.49803	0.47076	0.53181	263.97548	1.03400
Mean	0.20494	211.03780	0.09861	1.00196	0.49811	0.47110	0.52760	264.21559	1.03604
%RSD	0.15417	0.05513	5.84298	0.06983	0.02233	0.10235	1.12695	0.12852	0.27775

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.48046	0.47596	0.51987	107.50343	-0.30296	1.10348	268.52081	0.48021	0.97877
#2	0.47992	0.47417	0.52009	107.34832	-0.30697	1.10243	268.42461	0.48040	0.98677
Mean	0.48019	0.47507	0.51998	107.42587	-0.30496	1.10296	268.47271	0.48030	0.98277
%RSD	0.07831	0.26711	0.03001	0.10210	0.93035	0.06697	0.02534	0.02886	0.57571

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	0.19435	0.94583	0.97984	0.04478	0.05217	1.10164	0.55698	0.03447	0.05692
#2	0.19890	0.94861	0.97930	0.04532	0.05292	1.10164	0.54864	0.03996	0.05889
Mean	0.19662	0.94724	0.97957	0.04505	0.05255	1.10164	0.55281	0.03722	0.05791
%RSD	1.63709	0.20484	0.03889	0.84035	1.01150	0.00000	1.06777	10.41688	2.40805

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	0.93056	1.00297	1.04479	0.00265	0.92339	0.10249	9.84097	0.48312	0.89821
#2	0.93626	0.99529	1.04351	-0.00752	0.92286	0.10371	9.86582	0.48230	0.89578
Mean	0.93341	0.99913	1.04415	-0.00244	0.92312	0.10310	9.85340	0.48271	0.89699
%RSD	0.43137	0.54338	0.08696	295.00289	0.04062	0.84057	0.17831	0.12025	0.19168

	Zr ppm	Pb calc	Se calc
#1	0.48640	0.04971	0.04945
#2	0.48729	0.05039	0.05259
Mean	0.48685	0.05005	0.05102
%RSD	0.12995	0.96020	4.35350

Method : Paragon File : 111117A
SampleId1 : CCV SampleId2 :
Analysis commenced : 11/17/2011 17:43:55
Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/18/2011 12:19:01
[CV]

Position : STD6

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	0.21355	50.62005	0.49768	0.98537	0.98197	0.47661	0.50420	49.31957	0.51242
#2	0.21400	50.70091	0.49465	0.99121	0.98376	0.47712	0.51413	49.42870	0.51247
Mean	0.21377	50.66048	0.49617	0.98829	0.98286	0.47686	0.50917	49.37414	0.51245
%RSD	0.15153	0.11287	0.43251	0.41835	0.12867	0.07527	1.37825	0.15629	0.00588

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.49037	0.98822	0.99467	20.10532	50.76946	0.52579	50.00034	0.96537	0.98024

#2	0.49212	0.99262	0.99694	20.14082	50.85334	0.52699	50.13324	0.96645	0.98337
Mean	0.49124	0.99042	0.99580	20.12307	50.81140	0.52639	50.06679	0.96591	0.98180
%RSD	0.25169	0.31393	0.16112	0.12476	0.11672	0.16164	0.18769	0.07918	0.22521

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	48.10534	0.94536	4.84635	0.97156	0.97846	5.16172	0.46230	1.03249	1.00625
#2	48.20124	0.94587	4.91082	0.97592	0.97978	5.17335	0.46579	1.02725	1.00686
Mean	48.15329	0.94561	4.87858	0.97374	0.97912	5.16753	0.46404	1.02987	1.00655
%RSD	0.14082	0.03830	0.93446	0.31685	0.09577	0.15919	0.53257	0.35960	0.04297

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	4.90520	0.98984	0.51715	0.30687	0.47618	0.49345	4.82721	0.48819	0.94624
#2	4.91370	0.98471	0.51781	0.30815	0.47820	0.50030	4.83870	0.49024	0.95049
Mean	4.90945	0.98727	0.51748	0.30751	0.47719	0.49688	4.83296	0.48921	0.94836
%RSD	0.12245	0.36681	0.09035	0.29311	0.29961	0.97479	0.16809	0.29684	0.31730

	Zr ppm	Pb calc	Se calc
#1	0.97137	0.97616	1.01499
#2	0.97176	0.97850	1.01365
Mean	0.97156	0.97733	1.01432
%RSD	0.02841	0.16912	0.09314

Method : Paragon

File : 111117A

Printed : 11/18/2011 12:19:01

SampleId1 : CCB

SampleId2 :

[CB]

Analysis commenced : 11/17/2011 17:46:03

Dilution ratio : 1.00000 to 1.00000 Tray :

Position : STD2

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00141	0.00524	-0.00169	-0.00030	-0.00078	0.00011	0.00036	-0.04510	0.00027
#2	-0.00109	0.00484	0.00306	-0.00120	-0.00078	0.00011	-0.00698	-0.04420	0.00035
Mean	-0.00125	0.00504	0.00069	-0.00075	-0.00078	0.00011	-0.00331	-0.04465	0.00031
%RSD	18.43387	5.62818	488.86454	85.04919	0.00000	1.21598	156.87606	1.43447	17.38837

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00178	-0.00153	-0.00227	-0.00549	-0.26940	-0.00295	-0.04160	-0.00073	-0.00282
#2	-0.00094	-0.00070	-0.00216	-0.00602	-0.27961	-0.00297	-0.03209	-0.00073	-0.00208
Mean	-0.00136	-0.00111	-0.00222	-0.00575	-0.27450	-0.00296	-0.03684	-0.00073	-0.00245
%RSD	43.58337	53.10709	3.67687	6.52140	2.63094	0.47707	18.23684	0.00000	21.20646

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	0.13764	-0.00296	-0.01705	-0.00679	0.00230	-0.03704	0.00228	-0.00707	0.00294
#2	0.13719	-0.00252	-0.00684	-0.00600	-0.00402	-0.01371	-0.00194	-0.00660	0.00664

Mean	0.13742	-0.00274	-0.01195	-0.00640	-0.00086	-0.02537	0.00017	-0.00684	0.00479
%RSD	0.23035	11.35459	60.44983	8.79142	520.25319	64.99692	1726.64168	4.88168	54.69014
	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm								
#1	-0.02337	0.00123	-0.00331	-0.00610	-0.00220	0.00875	-0.03775	-0.00128	-0.00250
#2	-0.02425	-0.00560	-0.00326	-0.01048	-0.00214	-0.00017	-0.03154	-0.00114	-0.00280
Mean	-0.02381	-0.00219	-0.00329	-0.00829	-0.00217	0.00429	-0.03464	-0.00121	-0.00265
%RSD	2.62013	221.07911	0.96501	37.35003	1.80043	147.18919	12.68039	8.17283	8.10030
	Zr	Pb	Se						
	ppm	calc	calc						
#1	0.00040	-0.00073	-0.00039						
#2	0.00129	-0.00468	0.00223						
Mean	0.00085	-0.00270	0.00092						
%RSD	75.25718	103.35227	202.11066						

Method : Paragon File : 111117A
SampleId1 : Pb/Ba 1 11/16/11 10X SampleId2 :
Analysis commenced : 11/17/2011 17:49:48
Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/18/2011 12:19:01

[SAMPLE]

Position : TUBE94

Final concentrations

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00103	0.04946	0.00744	0.22545	0.02572	-0.00060	-0.00137	0.07054	-0.00062
#2	-0.00017	0.04908	0.00196	0.22365	0.02572	-0.00057	-0.00050	0.06843	-0.00021
Mean	-0.00060	0.04927	0.00470	0.22455	0.02572	-0.00058	-0.00093	0.06948	-0.00041
%RSD	101.36017	0.54389	82.34634	0.56705	0.00000	2.56694	65.67080	2.15101	69.65716
	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	0.00047	-0.00016	-0.00396	0.01321	0.55972	-0.00259	-0.05163	-0.00024	0.00205
#2	0.00077	0.00004	-0.00373	0.01242	0.55169	-0.00262	-0.04846	-0.00014	0.00260
Mean	0.00062	-0.00006	-0.00385	0.01282	0.55571	-0.00261	-0.05004	-0.00019	0.00233
%RSD	34.84702	227.31029	4.31389	4.39078	1.02112	0.94936	4.47570	36.77012	16.75287
	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	520.56566	-0.00083	0.02998	0.00126	-0.00356	986.33380	-0.00120	0.01207	0.00485
#2	522.84304	-0.00153	0.03079	0.00138	-0.00086	985.91800	-0.00289	0.00586	0.00925
Mean	521.70435	-0.00118	0.03038	0.00132	-0.00221	986.12590	-0.00205	0.00896	0.00705
%RSD	0.30867	41.68478	1.87651	6.50858	86.12904	0.02981	58.18805	49.04463	44.20967
	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	1.65710	0.02216	-0.00262	-0.01101	-0.00121	0.00482	-0.02711	-0.00104	0.00175
#2	1.64846	0.01661	-0.00259	-0.00940	-0.00121	0.00378	-0.02001	-0.00062	-0.00037
Mean	1.65278	0.01939	-0.00261	-0.01020	-0.00121	0.00430	-0.02356	-0.00083	0.00069

%RSD	0.36945	20.25624	0.81126	11.10842	0.00000	17.09467	21.30698	35.62067	217.99000
	Zr	Pb	Se						
	ppm	calc	calc						
#1	0.00397	-0.00195	0.00725						
#2	0.00383	-0.00012	0.00812						
Mean	0.00390	-0.00103	0.00769						
%RSD	2.67015	125.53062	7.99512						

Method : Paragon File : 111117A
SampleId1 : Pb/Ba 2 11/16/11 10X SampleId2 :
Analysis commenced : 11/17/2011 17:51:39
Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/18/2011 12:19:01
[SAMPLE]

Position : TUBE95

Final concentrations

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00069	0.03632	0.00780	0.11344	0.07235	-0.00071	0.00079	0.20613	-0.00021
#2	-0.00036	0.04305	-0.00290	0.11200	0.07308	-0.00071	-0.00267	0.20643	0.00024
Mean	-0.00053	0.03968	0.00245	0.11272	0.07271	-0.00071	-0.00094	0.20628	0.00002
%RSD	45.24380	11.99380	308.95291	0.90382	0.71183	0.02942	261.29931	0.10352	2052.84820

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	0.00129	0.00256	-0.00408	0.22370	1.02917	-0.00260	-0.04001	0.00084	-0.00245
#2	0.00084	0.00209	-0.00468	0.22396	1.03756	-0.00262	-0.04318	0.00074	-0.00328
Mean	0.00106	0.00233	-0.00438	0.22383	1.03337	-0.00261	-0.04160	0.00079	-0.00286
%RSD	30.27379	14.21796	9.63445	0.08389	0.57408	0.40609	5.38458	8.75465	20.41356

	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	479.34557	-0.00028	0.05524	0.01128	0.00641	997.86322	-0.00141	0.00053	0.00288
#2	478.59738	0.00071	0.03965	0.01067	0.01108	997.45356	-0.00071	0.00069	0.00329
Mean	478.97148	0.00021	0.04745	0.01097	0.00874	997.65839	-0.00106	0.00061	0.00309
%RSD	0.11046	330.88650	23.23110	3.89339	37.77573	0.02904	46.68782	17.62061	9.18604

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	1.16545	0.03754	-0.00153	-0.01073	-0.00106	0.00549	-0.02814	-0.00063	0.00995
#2	1.17335	0.02686	-0.00154	-0.01442	-0.00114	0.00630	-0.03258	-0.00091	0.01025
Mean	1.16940	0.03220	-0.00154	-0.01258	-0.00110	0.00589	-0.03036	-0.00077	0.01010
%RSD	0.47743	23.45078	0.68771	20.74337	4.98102	9.71035	10.33427	25.73830	2.12533

	Zr	Pb	Se
	ppm	calc	calc
#1	0.00233	0.00803	0.00210
#2	0.00255	0.01094	0.00242
Mean	0.00244	0.00949	0.00226
%RSD	6.34599	21.72446	9.94372

ted: 11/18/2011 12:19:04 User: MIKE LUNDGREEN
 Method : Paragon File : 111117A
 SampleId1 : Pb/Ba 3 11/16/11 10X SampleId2 :
 Analysis commenced : 11/17/2011 17:53:30
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/18/2011 12:19:01
 [SAMPLE]

Position : TUBE96

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00029	0.06000	-0.00035	0.10200	0.14478	-0.00041	-0.00785	0.12489	0.00013
#2	-0.00043	0.05573	0.00209	0.10497	0.14305	-0.00042	-0.00288	0.12610	-0.00006
Mean	-0.00036	0.05787	0.00087	0.10349	0.14392	-0.00042	-0.00536	0.12550	0.00004
%RSD	28.26097	5.22453	198.03731	2.03041	0.84815	0.99919	65.57874	0.68058	364.69399
	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.00162	-0.00029	-0.00396	0.03112	1.23344	-0.00229	-0.03843	0.00035	0.01041
#2	0.00101	0.00142	-0.00312	0.03139	1.23344	-0.00231	-0.04054	0.00045	0.01096
Mean	0.00132	0.00056	-0.00354	0.03126	1.23344	-0.00230	-0.03948	0.00040	0.01068
%RSD	32.85616	214.00296	16.62586	0.60023	0.00000	0.76796	3.78170	17.34402	3.64726
	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	497.51699	-0.00167	0.04369	-0.00183	-0.00157	986.40681	-0.00268	0.02451	0.00765
#2	497.07812	-0.00087	0.04342	0.00519	-0.00122	986.22803	0.00124	0.01830	0.01487
Mean	497.29756	-0.00127	0.04355	0.00168	-0.00140	986.31742	-0.00072	0.02140	0.01126
%RSD	0.06240	44.79218	0.43637	295.08624	18.05065	0.01282	386.86032	20.53134	45.29143
	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	0.97612	0.03156	-0.00320	-0.01149	-0.00147	0.00343	-0.03689	-0.00080	0.00266
#2	0.97582	0.02985	-0.00319	-0.01256	-0.00130	0.00228	-0.02624	-0.00034	0.00266
Mean	0.97597	0.03071	-0.00320	-0.01202	-0.00139	0.00286	-0.03156	-0.00057	0.00266
%RSD	0.02219	3.93526	0.33070	6.25924	8.46010	28.56329	23.85787	57.57627	0.00000
	Zr ppm	Pb calc	Se calc						
#1	0.00212	-0.00166	0.01327						
#2	0.00257	0.00092	0.01601						
Mean	0.00235	-0.00037	0.01464						
%RSD	13.72037	490.93336	13.24268						

HEADER INFORMATION FOR ANALYTICAL SEQUENCE 111118A

Analyst: Michael Lundgreen

STANDARD SOLUTION CODES

Stock A (ST110701-1) Exp.6-30-2012

<u>Element</u>	<u>ug/ml</u>
Al, Ca, Mg	1000
K	500
Na	300
Fe	400
Li	20

<u>Standard</u>	<u>Dilution</u>	<u>Procedure</u>
A1	1/2 of Stock A	5ml of Stock A to 10ml final volume.
A2	1/2.5 of Stock A	2ml of Stock A to a 5ml final volume.
A3	1/5 of Stock A	1ml of Stock A to a 5ml final volume.
A4	1/10 of A1	1ml of Standard A1 up to a 10ml final volume.
A5	1/10 of A4	1ml of Standard A4 up to a 10ml final volume.

Stock B (ST100625-8) Exp. 2-28-15

<u>Element</u>	<u>ug/ml</u>
P, Si	100
B, Ba, Cr, Cu, Mn, Mo, Ni, Pb, Sn, Sr, Ti, Zn	20
As, Cd, Co, Se, Tl, V	10
Sb	4
Be	2

Stock Ag- 1000 ug/ml (ST100407-4) Exp. 2-28-15
 Stock Th -- 1000 ug/ml (ST100407-5) Exp. 2-28-15

The following dilutions of Stock Ag and Stock Th are made to provide the daily calibration Standards.

<u>Standard</u>	<u>Dilution</u>	<u>Procedure</u>
B1	1/2 of Stock B	5ml of Stock B, 0.02ml of Stock Ag and 0.02ml of Stock Th up to a 10ml final volume.
B2	1/500 Ag and 1/500 Th	1.0ml of Standard B1 up to a 10ml final volume.
B3	1/10 of B2	1.0ml of Standard B2 up to a 10ml final volume.

Stock C (ST100625-9) Exp. 6-30-15

<u>Element</u>	<u>ug/ml</u>
S, U	100
Bi, Zr	10

<u>Standard</u>	<u>Dilution</u>	<u>Procedure</u>
C1	1/2 of Stock C	5ml of Stock C up to a 10ml final volume.
C2	1/10 of C1	1.0ml of Standard C1 up to a 10ml final volume.
C3	1/10 of C2	1.0ml of Standard C2 up to a 10ml final volume.

RL STD (Reporting Limit Standard) Intermediate.
 (ST100301-54) Exp. 2-28-15

<u>Element</u>	<u>ug/ml</u>
K, Na	500
Ca, Mg	200
Al, U	100
B, Fe, P, S, Si	50
Li, Mo, Sn, Sr, Ti	10
Sb	8
Ni, As, Bi, Se, Tl, Zn, Zr	5
Pb	3
Ag, Ba, Co, Cr, Cu, Mn, V, Th	2
Be, Cd	1

RL STD (working standard) made daily by diluting the intermediate above 1000 fold. This working standard has concentration levels at the normal ALS-FC reporting limits for all elements except Ca, Mg and Na, K which are at 0.2ppm and 0.5ppm; this is below the normal ALS-FC reporting limit.

RL2 (working standard) made daily by diluting the intermediate above 333 fold.

Blank Solution

Double D.I. water, 3% HNO₃ and 5%HCl
Used for Std. Blank, ICB and CCB

CCV (ST110818-5) Exp. 6-20-12

<u>Element</u>	<u>ug/ml</u>
Al, Ca, Mg, K, Na	50
Fe	20
U, P, S, Si	5
B, Ba, Cr, Cu, Mn, Mo, Ni, Pb, Se, Sn, Zn, Zr	1
As, Be, Bi, Cd, Co, Li, Sb, Sr, Ti, Tl, V	0.5
Ag, Th	0.2

ICV (ST110815-5) Exp. 6-20-12

Prepared daily by diluting the CCV (described above) 1/2.
The 1/2 dilution is made by diluting 5ml of the CCV to a 10ml final volume.
The resulting concentrations are:

<u>Element</u>	<u>ug/ml</u>
Al, Ca, Mg, K, Na	25
Fe	10
U, P, S, Si	2.5
B, Ba, Cr, Cu, Mn, Mo, Ni, Pb, Se, Sn, Zn, Zr	0.5
As, Be, Bi, Cd, Co, Li, Sb, Sr, Ti, Tl, V	0.25
Ag, Th	0.1

CRI (ST110105-13) Exp. 6-20-12

Made By diluting
1.0ml of CRI Stock (ST110105-4) Exp. 6-20-12
to a 100ml final volume.

<u>Element</u>	<u>ug/ml</u>
Ca, Mg, K, Na	5.0
Al, B, Ba	0.4
Fe, U, P, S	0.2
Sb	0.12
Co, Si, Sn, V, Th	0.1
Ni	0.08
Cu, Bi, Zr	0.05
Zn	0.04
Mn	0.03
Ag, Cr, Li, Mo, Sr, Ti, Tl	0.02
Be, Cd, As, Se,	0.01
Pb	0.006

ICSA (ST110105-7) Exp. 6-20-12

<u>Element</u>	<u>ug/ml</u>
Ca, Mg, Al	250
Fe	100

ICSAB (ST110105-8) Exp. 6-20-12

<u>Element</u>	<u>ug/ml</u>
Ca, Mg, Al	250
Fe	100
U	10

Sb	0.6
Ba, Be, Co, V, Cr, Cu, Mn, Bi, Zr	0.5
Ag	0.2
As, Tl	0.1
Se, Pb, Th	0.05

Pipette ID Numbers

1.0ml to 5.0ml --- M-55
0.1ml to 1.0ml --- M-61
0.01ml to 0.1ml --- M-57

Acid Lot Numbers

HCl – J35042
HNO₃ – J41037

Inter Element Correction Information

The following table summarizes spectral interferences that have been identified and for which IEC's are used. If a sample contains a concentration of an interfering element that exceeds the upper analytical range, and an affected element is being determined, it is necessary to dilute the sample to bring the interfering element into analytical range.

<u>Interfering Element (ug/ml)</u>	<u>Affected Element</u>
Al (500)	Pb
Mg (500)	Th
Fe (200)	Se, Tl, V, Pb, U
Si (50)	Zr
U (50)	Al, Cr, Cu, Bi, Pb, Mg, Se, Ag, Tl, Si
Ba (10)	Co
Cr (10)	Sb
Cu (10)	Bi
Mn (10)	Tl
Mo (10)	Al, Si, Pb,, Sb
Ti (10)	Co, Bi, Si, Sn, Tl, Pb, Zr
As (5)	Cd
V (5)	Al, Be, Tl
Zr (5)	Ag

The following table lists element concentrations (ug/ml) that no significant spectral interferences have been observed.

<u>Element</u>	<u>Concentration</u>	<u>Element</u>	<u>Concentration</u>	<u>Element</u>	<u>Concentration</u>
K	500	Se	10	Li	5
Na	500	Pb	10	Cd	5
Ca	500	Zn	10	Co	5
P	50	Sr	10	Ag	2
S	50	Sn	10	Sb	2
Ni	10	Bi	5	Be	1
B	10	Tl	5		

- 2X – Dilution made by diluting 2.5ml of sample up to a 5ml final volume.
- 3X - Dilution made by diluting 2.0ml of sample up to a 6ml final volume.
- 4X - Dilution made by diluting 2.0ml of sample up to a 8ml final volume.
- 5X - Dilution made by diluting 1.0ml of sample to a 5ml final volume.
- 10X - Dilution made by diluting 0.5ml of sample to a 5ml final volume.
- 20X – Dilution made by diluting 0.25ml of sample to a 5ml final volume.
- 25X – Dilution made by diluting 0.2ml of sample to a 5ml final volume.

100X – Dilution made by diluting 0.05ml of sample to a 5ml final volume.
500X – Dilution made by diluting 0.02ml of sample to a 10ml final volume.
1000X – Dilution made by diluting a 10X dilution 100X.

Analytical Spikes

1111160-2 was post spiked for B, Ba, K, Li, Sb, Si, Ti, Zn and Zr by spiking 0.1mL ST110916-7, 0.1mL ST111116-1 and 0.1mL ST110301-2 onto 4.7mL sample, 5.0mL final volume.

1111162-1 was post spiked for Sb and Mn by spiking 0.1mL ST110916-7 onto 4.9mL sample, 5.0mL final volume.

1111106-22 was post spiked for K by spiking 0.1mL ST111116-1 onto 4.9mL sample. 5.0mL final volume.

1111238-3 was post spiked at a five fold dilution for Ca, Mg and K by spiking 0.1mL ST111116-1 onto 1.0mL sample and 3.9mL millq water, 5.0mL final volume.

1111238-3 was also post spiked at a 25X dilution for Na by spiking 0.1mL ST111116-1 onto 0.2mL sample and 4.7mL millq water, 5.0mL final volume.

Comments

1. Please see run log and work orders for elements of interest.

Daily Maintenance

1. Check/ Change Peristaltic pump tubing.
2. Check the torch for deposits, clean if necessary.
3. Check/ Empty drain water.

Daily Maintenance done by MTL .

Monthly Maintenance

1. Check/Clean nebulizer and spray chamber.
2. Clean air filters
3. Check/Clean entrance slit.
4. Fill water recirculating reservoir.

Monthly maintenance done by: MTL 11-01-2011.

Major problems / adjustments / repairs recorded in the ICP Maintenance Log (3716).

ICPTrace2 Run Log -- 11/18/2011

Instrument ID: ICPTrace2
 File Name: 111118A.
 AnalRunID: IT111118-2A1
 CalibRefID: IT111118-2A1

Comment	Inst Sample Name	Lab ID	DF	Date Analyzed	Time Analyzed
	MIXBHIGH	MIXBHIGH	1	11/18/2011	14:08
	MIXAHIGH	MIXAHIGH	1	11/18/2011	14:10
	MIXCHIGH	MIXCHIGH	1	11/18/2011	14:12
	ICV	ICV	1	11/18/2011	14:47
	ICB	ICB	1	11/18/2011	14:49
	CRI	CRI1	1	11/18/2011	14:51
	ICSA	ICSA1	1	11/18/2011	14:53
	ICSAB	ICSAB1	1	11/18/2011	14:55
	CCV	CCV1	1	11/18/2011	15:00
	CCB	CCB1	1	11/18/2011	15:02
	F111115-1LCS	F111115-1LCS	1	11/18/2011	15:04
- Na	1111179-1	1111179-1	1	11/18/2011	15:06
	1111184-1	1111184-1	1	11/18/2011	15:08
	IP111116-5MB	IP111116-5MB	1	11/18/2011	15:10
	IP111116-5LCS	IP111116-5LCS	1	11/18/2011	15:11
	1111037-3	1111037-3	1	11/18/2011	15:13
	1111037-3D	1111037-3DUP	1	11/18/2011	15:15
	1111037-3L 5X	1111037-3SER	5	11/18/2011	15:17
	1111037-3MS	1111037-3MS	1	11/18/2011	15:19
	1111037-3MSD	1111037-3MSD	1	11/18/2011	15:20
	CCV	CCV2	1	11/18/2011	15:23
	CCB	CCB2	1	11/18/2011	15:25
- Ce, Na, Sr	1111040-1 10X	1111040-1	10	11/18/2011	15:27
- Ca, Na, Sr	1111040-3 10X	1111040-3	10	11/18/2011	15:29
- Ba, Ca, Co, Na, Sr	1111040-4 10X	1111040-4	10	11/18/2011	15:31
- Ba, Ca, Co, Na, Sr	1111040-5 10X	1111040-5	10	11/18/2011	15:33
- Ce, Na, Sr	1111040-7 10X	1111040-7	10	11/18/2011	15:35
- Ba, Ca, Co, Na, Sr	1111051-1 10X	1111051-1	10	11/18/2011	15:37
- Ba, Ca, Co, Na, Sr	1111051-2 10X	1111051-2	10	11/18/2011	15:38
	1111059-9	1111059-9	1	11/18/2011	15:42
	1111059-10	1111059-10	1	11/18/2011	15:44
	1111078-2	1111078-2	1	11/18/2011	15:46
	CCV	CCV3	1	11/18/2011	15:48
	CCB	CCB3	1	11/18/2011	15:50
	1111078-8	1111078-8	1	11/18/2011	15:52

Data Package ID:

ICPTrace2 Run Log -- 11/18/2011

Instrument ID: ICPTrace2
 File Name: 111118A.
 AnalRunID: IT111118-2A1
 CalibRefID: IT111118-2A1

Comment	Inst Sample Name	Lab ID	DF	Date Analyzed	Time Analyzed
	1111078-14	1111078-14	1	11/18/2011	15:54
	1111078-19	1111078-19	1	11/18/2011	15:56
	1111078-35	1111078-35	1	11/18/2011	15:58
	IP1111117-1MB	IP1111117-1MB	1	11/18/2011	15:59
	IP1111117-1RVS	IP1111117-1	1	11/18/2011	16:01
	ZZZ	ZZZ	1	11/18/2011	16:03
- Bi,Cu,Fe,Mn,Pb,Se,Tl,U,V,Zn	1110384-1	1110384-1	1	11/18/2011	16:05
- Bi,Cu,Fe,Pb,Se,Tl,U,V,Zn	1110384-2	1110384-2	1	11/18/2011	16:07
	1110384-3	1110384-3	1	11/18/2011	16:16
	CCV	CCV4	1	11/18/2011	16:17
	CCB	CCB4	1	11/18/2011	16:19
	1110384-4	1110384-4	1	11/18/2011	16:21
- Pb	1110384-5	1110384-5	1	11/18/2011	16:23
- Pb	1110384-6	1110384-6	1	11/18/2011	16:25
	1111160-2	1111160-2	1	11/18/2011	16:31
	1111160-2D	1111160-2DUP	1	11/18/2011	16:33
	1111160-2L 5X	1111160-2SER	5	11/18/2011	16:34
	1111160-2MS	1111160-2MS	1	11/18/2011	16:36
	1111160-2MSD	1111160-2MSD	1	11/18/2011	16:38
- Fe,Pb,Se,Tl,U,V	1111160-3	1111160-3	1	11/18/2011	16:40
- Fe,Pb,Se,Tl,U,V	1111160-4	1111160-4	1	11/18/2011	16:42
	CCV	CCV5	1	11/18/2011	16:44
	CCB	CCB5	1	11/18/2011	16:46
- Fe,Pb,Se,Tl,U,V	1111160-5	1111160-5	1	11/18/2011	16:48
	1111160-6	1111160-6	1	11/18/2011	16:50
	1111160-7	1111160-7	1	11/18/2011	16:52
	1111160-8	1111160-8	1	11/18/2011	16:54
	1111160-9	1111160-9	1	11/18/2011	16:55
	1111160-10	1111160-10	1	11/18/2011	16:57
	1111160-11	1111160-11	1	11/18/2011	16:59
	1111160-12	1111160-12	1	11/18/2011	17:01
	1111160-13	1111160-13	1	11/18/2011	17:03
- S	1111160-14	1111160-14	1	11/18/2011	17:04
	CCV	CCV6	1	11/18/2011	17:07
	CCB	CCB6	1	11/18/2011	17:09

Data Package ID:

ICPTrace2 Run Log -- 11/18/2011

Instrument ID: ICPTrace2
 File Name: 111118A.
 AnalRunID: IT111118-2A1
 CalibRefID: IT111118-2A1

Comment	Inst Sample Name	Lab ID	DF	Date Analyzed	Time Analyzed
	1111160-15	1111160-15	1	11/18/2011	17:11
+ Ca, Sr	1111040-1 100X	1111040-1	100	11/18/2011	17:13
+ Ca, Sr	1111040-3 100X	1111040-3	100	11/18/2011	17:15
+ Ba, Ca, Co	1111040-4 100X	1111040-4	100	11/18/2011	17:16
+ Ba, Ca, Co	1111040-5 100X	1111040-5	100	11/18/2011	17:18
+ Ca, Sr	1111040-7 100X	1111040-7	100	11/18/2011	17:20
+ Ba, Ca, Co	1111051-1 100X	1111051-1	100	11/18/2011	17:22
+ Ba, Ca, Co	1111051-2 100X	1111051-2	100	11/18/2011	17:24
	CCV	CCV7	1	11/18/2011	17:26
	CCB	CCB7	1	11/18/2011	17:28
	IP111117-1LCS	IP111117-1LCS	1	11/18/2011	17:49
+ Bi, Cu, Fe, Mn, Pb, Se, Ti, U, V, Zn	1110384-1 10X	1110384-1	10	11/18/2011	17:51
+ Bi, Cu, Fe, Pb, Se, Ti, U, V, Zn	1110384-2 10X	1110384-2	10	11/18/2011	17:53
+ Pb	1110384-5 10X	1110384-5	10	11/18/2011	17:55
+ Pb	1110384-6 10X	1110384-6	10	11/18/2011	17:56
+ Fe, Pb, Se, Ti, U, V	1111160-3 5X	1111160-3	5	11/18/2011	17:58
+ Fe, Pb, Se, Ti, U, V	1111160-4 5X	1111160-4	5	11/18/2011	18:00
+ Fe, Pb, Se, Ti, U, V	1111160-5 5X	1111160-5	5	11/18/2011	18:02
+ Na	1111040-1 1000X	1111040-1	1000	11/18/2011	18:04
+ Na	1111040-3 1000X	1111040-3	1000	11/18/2011	18:06
	CCV	CCV8	1	11/18/2011	18:08
	CCB	CCB8	1	11/18/2011	18:10
+ Na, Sr	1111040-4 1000X	1111040-4	1000	11/18/2011	18:12
+ Na, Sr	1111040-5 1000X	1111040-5	1000	11/18/2011	18:14
+ Na	1111040-7 1000X	1111040-7	1000	11/18/2011	18:16
+ Na, Sr	1111051-1 1000X	1111051-1	1000	11/18/2011	18:17
+ Na, Sr	1111051-2 1000X	1111051-2	1000	11/18/2011	18:19
+ B, Ba, K, Li, Mo, Sb, Si, Ti, Zn, Zr	1111160-2A	1111160-2A	1	11/18/2011	18:21
	IP111117-2MB	IP111117-2MB	1	11/18/2011	18:23
	IP111117-2RVS	IP111117-2	1	11/18/2011	18:25
	IP111117-2LCS	IP111117-2LCS	1	11/18/2011	18:27
	1111162-1	1111162-1	1	11/18/2011	18:32
	CCV	CCV9	1	11/18/2011	18:34
	CCB	CCB9	1	11/18/2011	18:36
	1111162-1D	1111162-1DUP	1	11/18/2011	18:38

Data Package ID:

ICPTrace2 Run Log -- 11/18/2011

Instrument ID: ICPTrace2
 File Name: 111118A.
 AnalRunID: IT111118-2A1
 CalibRefID: IT111118-2A1

Comment	Inst Sample Name	Lab ID	DF	Date Analyzed	Time Analyzed
	1111162-1L 5X	1111162-1SER	5	11/18/2011	18:40
	1111162-1MS	1111162-1MS	1	11/18/2011	18:42
	1111162-1MSD	1111162-1MSD	1	11/18/2011	18:44
	1111162-2	1111162-2	1	11/18/2011	18:46
	1111162-3	1111162-3	1	11/18/2011	18:48
	1111162-4	1111162-4	1	11/18/2011	18:49
	1111162-5	1111162-5	1	11/18/2011	18:51
	1111162-6	1111162-6	1	11/18/2011	18:53
	1111162-7	1111162-7	1	11/18/2011	18:55
	CCV	CCV10	1	11/18/2011	18:57
	CCB	CCB10	1	11/18/2011	18:59
	1111162-8	1111162-8	1	11/18/2011	19:01
	1111162-9	1111162-9	1	11/18/2011	19:03
	1111162-10	1111162-10	1	11/18/2011	19:05
	1111162-11	1111162-11	1	11/18/2011	19:07
	1111162-12	1111162-12	1	11/18/2011	19:09
	1111162-13	1111162-13	1	11/18/2011	19:11
	1111162-14	1111162-14	1	11/18/2011	19:12
	1111162-15	1111162-15	1	11/18/2011	19:14
	IP111118-2MB	IP111118-2MB	1	11/18/2011	19:16
	IP111118-2RVS	IP111118-2	1	11/18/2011	19:18
	CCV	CCV11	1	11/18/2011	19:20
	CCB	CCB11	1	11/18/2011	19:22
	IP111118-2LCS	IP111118-2LCS	1	11/18/2011	19:24
	1111071-1	1111071-1	1	11/18/2011	19:26
	1111071-1D	1111071-1DUP	1	11/18/2011	19:28
	1111071-1L 5X	1111071-1SER	5	11/18/2011	19:30
	1111071-1MS	1111071-1MS	1	11/18/2011	19:32
	1111071-1MSD	1111071-1MSD	1	11/18/2011	19:34
- Na, Sr	1111104-1 10X	1111104-1	10	11/18/2011	19:36
	1111170-1	1111170-1	1	11/18/2011	19:38
	1111171-1	1111171-1	1	11/18/2011	19:40
	1111173-1	1111173-1	1	11/18/2011	19:42
	CCV	CCV12	1	11/18/2011	19:44
	CCB	CCB12	1	11/18/2011	19:46

Data Package ID:

ICPTrace2 Run Log -- 11/18/2011

Instrument ID: ICPTrace2
 File Name: 111118A.
 AnalRunID: IT111118-2A1
 CalibRefID: IT111118-2A1

Comment	Inst Sample Name	Lab ID	DF	Date Analyzed	Time Analyzed
	1111174-1	1111174-1	1	11/18/2011	19:48
	1111180-1	1111180-1	1	11/18/2011	19:50
	1111181-1	1111181-1	1	11/18/2011	19:52
	1111182-1	1111182-1	1	11/18/2011	19:54
	1111183-1	1111183-1	1	11/18/2011	19:56
	1111207-1	1111207-1	1	11/18/2011	19:58
	1111209-1	1111209-1	1	11/18/2011	20:00
	1111210-1	1111210-1	1	11/18/2011	20:02
- Na	1111232-1	1111232-1	1	11/18/2011	20:04
	1111233-1	1111233-1	1	11/18/2011	20:05
	CCV	CCV13	1	11/18/2011	20:08
	CCB	CCB13	1	11/18/2011	20:10
	1111234-1	1111234-1	1	11/18/2011	20:12
- Na	1111235-1	1111235-1	1	11/18/2011	20:14
- S	1111260-1	1111260-1	1	11/18/2011	20:15
	1111261-1	1111261-1	1	11/18/2011	20:17
- Sb	1111162-1A	1111162-1A	1	11/18/2011	20:19
	IP111118-3MB	IP111118-3MB	1	11/18/2011	20:21
	IP111118-3RVS	IP111118-3	1	11/18/2011	20:23
	IP111118-3LCS	IP111118-3LCS	1	11/18/2011	20:25
	1111092-9	1111092-9	1	11/18/2011	20:26
	1111092-10	1111092-10	1	11/18/2011	20:28
	CCV	CCV14	1	11/18/2011	20:31
	CCB	CCB14	1	11/18/2011	20:33
- Na, S	1111106-22	1111106-22	1	11/18/2011	20:35
- Na, S	1111106-22D	1111106-22DUP	1	11/18/2011	20:37
- Na, S	1111106-22L 5X	1111106-22SER	5	11/18/2011	20:39
- Na, S	1111106-22MS	1111106-22MS	1	11/18/2011	20:41
- Na, S	1111106-22MSD	1111106-22MSD	1	11/18/2011	20:43
	1111106-35	1111106-35	1	11/18/2011	20:45
	1111106-48	1111106-48	1	11/18/2011	20:46
- S	1111106-61	1111106-61	1	11/18/2011	20:48
	1111134-1 10X	1111134-1	10	11/18/2011	20:50
	1111134-2 10X	1111134-2	10	11/18/2011	20:52
	CCV	CCV15	1	11/18/2011	20:55

Data Package ID: _____

ICPTrace2 Run Log -- 11/18/2011

Instrument ID: ICPTrace2
 File Name: 111118A.
 AnalRunID: IT111118-2A1
 CalibRefID: IT111118-2A1

Comment	Inst Sample Name	Lab ID	DF	Date Analyzed	Time Analyzed
	CCB	CCB15	1	11/18/2011	20:57
	1111134-3 10X	1111134-3	10	11/18/2011	20:59
	1111161-1 10X	1111161-1	10	11/18/2011	21:01
	1111161-2 10X	1111161-2	10	11/18/2011	21:02
	1111161-3 10X	1111161-3	10	11/18/2011	21:04
	1111161-4 10X	1111161-4	10	11/18/2011	21:06
- S	1111172-1	1111172-1	1	11/18/2011	21:08
- S	1111172-2	1111172-2	1	11/18/2011	21:10
- S	1111172-3	1111172-3	1	11/18/2011	21:12
- S	1111172-4	1111172-4	1	11/18/2011	21:14
- Ca,Na,S,Sr	1111172-5	1111172-5	1	11/18/2011	21:16
	CCV	CCV16	1	11/18/2011	21:18
	CCB	CCB16	1	11/18/2011	21:20
- Na, S, Sr	1111172-6	1111172-6	1	11/18/2011	21:22
- S	1111172-10	1111172-10	1	11/18/2011	21:24
+ Na, Sr	1111104-1 500X	1111104-1	500	11/18/2011	21:26
+ Na	1111232-1 5X	1111232-1	5	11/18/2011	21:28
+ Na	1111235-1 5X	1111235-1	5	11/18/2011	21:30
- Na, S	1111238-1 5X	1111238-1	5	11/18/2011	21:31
- Na, S	1111238-3 5X	1111238-3	5	11/18/2011	21:33
- Na, S	1111238-3L 25X	1111238-3SER	25	11/18/2011	21:35
- Ca, K, Mg	1111238-3A 5X	1111238-3A	5	11/18/2011	21:37
+ Na, S	1111106-22 5X	1111106-22	5	11/18/2011	21:39
	CCV	CCV17	1	11/18/2011	21:41
	CCB	CCB17	1	11/18/2011	21:43
+ Na, S	1111106-22D 5X	1111106-22DUP	5	11/18/2011	21:45
+ Na, S	1111106-22L 25X	1111106-22SER	25	11/18/2011	21:47
+ Na, S	1111106-22MS 5X	1111106-22MS	5	11/18/2011	21:49
+ Na, S	1111106-22MSD 5X	1111106-22MSD	5	11/18/2011	21:51
	1111134-1	1111134-1	1	11/18/2011	21:53
	1111134-2	1111134-2	1	11/18/2011	21:55
	1111134-3	1111134-3	1	11/18/2011	21:57
	1111161-3	1111161-3	1	11/18/2011	21:59
+ Ca, Na, Sr	1111172-5 10X	1111172-5	10	11/18/2011	22:01
+ Na	1111238-1 25X	1111238-1	25	11/18/2011	22:03

Data Package ID:

ICPTrace2 Run Log -- 11/18/2011

Instrument ID: ICPTrace2
 File Name: 111118A.
 AnalRunID: IT111118-2A1
 CalibRefID: IT111118-2A1

Comment	Inst Sample Name	Lab ID	DF	Date Analyzed	Time Analyzed
	CCV	CCV18	1	11/18/2011	22:06
	CCB	CCB18	1	11/18/2011	22:08
+ Na,S	1111238-3 25X	1111238-3	25	11/18/2011	22:09
+ Na,S	1111238-3L 125X	1111238-3SER	125	11/18/2011	22:11
+ Na	1111238-3A 25X	1111238-3A	25	11/18/2011	22:13
+ Na,Sr	1111172-6 10X	1111172-6	10	11/18/2011	22:15
+ K,Li	1111106-22A	1111106-22A	1	11/18/2011	22:17
	CRI	CRI2	1	11/18/2011	22:19
	ICSA	ICSA2	1	11/18/2011	22:21
	ICSAB	ICSAB2	1	11/18/2011	22:23
	CCV	CCV19	1	11/18/2011	22:25
	CCB	CCB19	1	11/18/2011	22:27

Data Package ID:

Sample Id1	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu
MIXBHIGH	1.99971	0.02186	4.99825	9.98100	H10.01097	0.98378	0.00160	-0.08880	4.92258	4.93748	9.84637	H10.10540
MIXAHIGH	0.00013	496.87783	0.00058	-0.00711	-0.00063	0.00099	0.00460	495.91775	-0.00056	0.00046	0.00110	-0.00868
MIXCHIGH	L-0.01142	0.35042	-0.00600	0.00387	-0.00140	0.00505	H5.02860	-0.04893	-0.00170	0.00581	-0.00467	L-0.01480
ICV	0.09273	25.87087	0.24952	0.49612	0.50081	0.24009	0.25154	24.40226	0.24545	0.24536	0.49554	0.49719
ICB	-0.00038	-0.05348	-0.00153	-0.00549	-0.00102	-0.00069	-0.00105	-0.06807	-0.00060	-0.00027	-0.00050	-0.00034
CRI	0.01852	0.41194	0.01411	0.40965	0.42181	0.01121	0.04938	5.08559	0.01091	0.10172	0.02126	0.05226
ICSA	0.00000	276.80847	-0.00242	-0.00679	-0.00098	0.00001	0.00763	264.12735	-0.00028	0.00083	-0.00166	-0.00317
ICSAB	0.18859	221.98940	0.10555	1.01829	0.52091	0.47692	0.53080	263.58671	0.97996	0.47192	0.47082	0.53746
CCV	0.19812	53.49136	0.51167	1.02399	1.04891	0.48567	0.53182	48.57740	0.49629	0.48712	0.98792	1.05107
CCB	-0.00064	0.00424	-0.00053	-0.00480	-0.00063	-0.00010	0.00146	-0.03899	-0.00059	-0.00023	-0.00072	-0.00020
F111115-1LCS	0.08994	2.12278	1.96223	0.48721	2.03543	0.04566	-0.00301	36.91510	0.04706	0.47581	0.19085	0.25298
1111179-1	0.00010	-0.00361	-0.00084	0.03128	0.09890	-0.00034	-0.00001	5.72952	-0.00047	-0.00040	-0.00058	0.00026
1111184-1	-0.00066	-0.04013	0.00026	0.01823	0.07110	-0.00044	-0.00366	55.16293	-0.00089	-0.00102	-0.00122	0.00017
IP111116-5MB	-0.00087	-0.04664	-0.00216	-0.00679	-0.00144	-0.00055	-0.00348	-0.08016	-0.00076	-0.00064	-0.00136	-0.00071
IP111116-5LCS	0.08976	2.14004	2.00259	0.49933	2.01469	0.04807	0.00333	37.04158	0.04731	0.47585	0.19166	0.25269
1111037-3	-0.00032	-0.02511	0.00169	0.00961	0.15459	-0.00058	-0.00209	120.61117	-0.00066	-0.00029	-0.00084	-0.00006
1111037-3D	-0.00045	-0.02183	-0.00326	0.00973	0.15457	-0.00057	-0.00045	120.29423	-0.00059	-0.00043	-0.00073	-0.00034
1111037-3L 5X	-0.00058	0.27331	-0.00369	-0.00332	0.03076	-0.00060	0.00102	23.61788	-0.00082	-0.00077	-0.00123	-0.00099
1111037-3MS	0.08917	2.09624	1.98834	0.51809	2.16550	0.04738	0.00080	156.73639	0.04630	0.46406	0.18571	0.25487
1111037-3MSD	0.08886	2.12174	1.98401	0.51614	2.16606	0.04741	-0.00137	156.49894	0.04650	0.46451	0.18606	0.25663
CCV	0.19866	53.60078	0.51151	1.02702	1.05306	0.48446	0.53020	48.42004	0.49823	0.48775	0.98325	1.06052
CCB	-0.00017	0.00158	-0.00190	-0.00545	-0.00086	-0.00009	-0.00287	-0.05742	-0.00062	-0.00061	-0.00064	-0.00071
1111040-1 10X	-0.00034	-0.03849	-0.00032	3.07628	3.19849	-0.00029	0.00562	H662.00407	-0.00065	0.00408	0.00287	-0.00109
1111040-3 10X	-0.00063	-0.04989	0.00569	4.87093	2.39049	-0.00047	-0.00203	H1030.32955	-0.00069	0.00110	-0.00069	-0.00212
1111040-4 10X	-0.00096	1.40800	0.00084	4.18885	H19.53721	-0.00043	0.00239	H1043.45932	-0.00112	0.00990	-0.00131	-0.00296
1111040-5 10X	-0.00078	2.19435	0.00111	4.42644	H11.14385	-0.00052	-0.00420	H950.36071	-0.00119	0.00541	-0.00110	-0.00291
1111040-7 10X	-0.00071	-0.03589	0.00095	3.11062	2.94776	-0.00040	0.00050	H669.83446	-0.00100	0.00284	0.00236	-0.00083
1111051-1 10X	-0.00044	1.10653	-0.00026	4.11443	H12.27889	-0.00067	0.00109	H904.36273	-0.00107	0.00558	-0.00081	-0.00259
1111051-2 10X	-0.00122	1.23283	0.00190	4.41721	H13.10118	-0.00066	0.00413	H988.55379	-0.00131	0.00577	-0.00145	-0.00268
1111059-9	-0.00053	-0.03226	0.00090	-0.00130	-0.00038	-0.00038	-0.00210	-0.04360	-0.00084	-0.00023	-0.00094	-0.00117
1111059-10	-0.00034	-0.02525	-0.00163	-0.00408	-0.00129	-0.00030	-0.00444	-0.07512	-0.00117	-0.00102	-0.00157	-0.00142
1111078-2	-0.00014	0.20860	-0.00126	0.00416	0.12119	-0.00016	0.00156	34.10144	-0.00057	-0.00031	0.00099	-0.00089
CCV	0.19894	53.55572	0.51751	1.03112	1.05279	0.48520	0.53743	48.14741	0.50064	0.48614	0.98074	1.04769
CCB	-0.00079	0.01523	-0.00348	-0.00420	-0.00090	0.00009	-0.00054	-0.06059	-0.00086	-0.00085	-0.00106	-0.00148
1111078-8	-0.00078	-0.01377	0.00090	0.00973	0.17789	-0.00006	-0.00219	118.47972	-0.00078	-0.00049	-0.00123	-0.00134
1111078-14	-0.00098	-0.01015	-0.00226	0.00996	0.17908	-0.00003	-0.00150	120.77846	-0.00087	-0.00060	-0.00126	-0.00119
1111078-19	-0.00055	5.07491	0.00011	0.01041	0.10749	0.00002	-0.00075	60.00337	-0.00067	0.00105	0.00797	0.00102
1111078-35	-0.00067	0.01397	-0.00095	0.06130	0.14520	-0.00016	-0.00177	137.57747	-0.00105	-0.00040	-0.00132	0.02228
IP111117-1MB	-0.00030	-0.02778	-0.00221	-0.00545	-0.00127	-0.00038	-0.00183	-0.03050	-0.00079	-0.00061	-0.00056	0.00048
IP111117-1RVS	0.00937	1.00772	0.05104	0.04570	0.04945	0.00982	0.10498	4.85649	0.01944	0.01990	0.05001	0.04915
ZZZ	0.08700	2.08689	1.92969	0.47346	2.01608	0.04863	-0.00370	36.63185	0.04709	0.47628	0.19290	0.24790
1110384-1	0.07236	40.76996	0.07386	0.00668	2.29228	0.00421	0.02924	109.42540	1.13739	0.04948	0.03350	H10.96102
1110384-2	0.06441	40.55275	0.21090	0.00610	3.41660	0.00406	0.02480	144.58821	0.93226	0.05565	0.04231	H10.37268
1110384-3	0.12288	15.61413	0.07739	0.00645	0.33570	0.00498	0.00244	288.65029	0.00105	0.01621	0.08242	0.20778
CCV	0.20163	54.09210	0.52451	1.04180	1.05545	0.49315	0.55070	49.56853	0.51175	0.49675	1.00002	1.05333
CCB	-0.00048	0.01731	-0.00195	-0.00572	-0.00071	0.00018	0.00068	-0.04590	-0.00038	-0.00082	-0.00047	-0.00130
1110384-4	0.08136	13.41978	0.06127	0.00755	0.42974	0.00369	0.00289	351.50608	-0.00016	0.01021	0.05821	0.12040
1110384-5	0.03815	24.30534	0.13198	0.73246	2.72037	0.00388	0.01669	5.03491	0.02344	0.04340	0.12473	1.72547
1110384-6	0.05565	16.28405	0.14475	0.00557	0.23016	0.00389	0.02830	9.00791	0.05435	0.04586	0.08757	2.94648
1111160-2	-0.00220	116.57146	0.05578	0.58429	2.58627	0.00742	0.00614	194.58889	0.00071	0.05315	0.08600	0.12024

Sample Id1	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu
1111160-2D	-0.00220	115.50253	0.05816	0.23525	1.19389	0.00741	0.00866	186.78211	0.00045	0.05288	0.08435	0.11815
1111160-2L 5X	-0.00072	22.66631	0.00927	0.10121	0.47943	0.00165	0.00151	36.78690	-0.00038	0.01001	0.01632	0.02197
1111160-2MS	0.08289	170.17872	1.91519	0.39074	3.00388	0.05365	0.00582	229.17971	0.04657	0.49477	0.28405	0.37414
1111160-2MSD	0.08781	176.25969	1.99815	0.37149	3.06660	0.05566	0.00677	227.21818	0.04773	0.51556	0.29454	0.38929
1111160-3	-0.00252	139.58495	0.06691	0.01057	1.17131	0.01007	0.01008	165.06504	0.00091	0.07147	0.10535	0.15781
1111160-4	-0.00213	135.11675	0.05847	0.00484	1.12522	0.00983	0.01028	148.15322	0.00104	0.06775	0.10222	0.14830
CCV	0.19951	53.20750	0.51215	1.02621	1.03729	0.48310	0.53832	48.72079	0.50596	0.48797	0.98224	1.03700
CCB	-0.00049	0.02845	0.00258	-0.00580	-0.00069	0.00018	-0.00305	-0.04130	-0.00044	-0.00044	-0.00073	-0.00112
1111160-5	-0.00279	128.35534	0.06991	0.00874	1.24186	0.01018	0.01235	164.54058	0.00076	0.07510	0.10385	0.17116
1111160-6	-0.00150	46.73771	0.05109	-0.00046	0.24603	0.00335	-0.00006	72.87773	-0.00043	0.02104	0.02458	0.03591
1111160-7	-0.00184	86.11274	0.05363	0.00782	0.55998	0.00624	0.00874	155.93577	0.00042	0.03818	0.05680	0.08343
1111160-8	-0.00239	89.25777	0.06559	0.00561	0.59699	0.00653	0.00339	144.39299	-0.00005	0.03988	0.06090	0.08770
1111160-9	-0.00170	26.09060	0.04614	-0.00076	0.12169	0.00366	-0.00026	110.67098	-0.00082	0.01336	0.01131	0.01880
1111160-10	-0.00132	31.48964	0.04504	-0.00042	0.12851	0.00415	0.00504	71.08080	0.00130	0.01421	0.01385	0.04097
1111160-11	-0.00198	29.13145	0.03671	-0.00065	0.12365	0.00390	-0.00041	74.04425	-0.00018	0.01307	0.01302	0.02618
1111160-12	-0.00254	33.84381	0.05489	0.00122	0.21985	0.00566	0.00072	142.61462	-0.00090	0.01687	0.01764	0.02354
1111160-13	-0.00156	45.31843	0.04994	-0.00458	0.18574	0.00382	0.00442	82.33526	-0.00054	0.01820	0.01736	0.02720
1111160-14	0.00266	69.31225	0.12559	0.00607	0.44854	0.00548	0.00835	133.89438	0.04726	0.04195	0.04574	0.61889
CCV	0.19753	53.04881	0.51491	1.01986	1.03896	0.47655	0.53937	47.94277	0.50145	0.48186	0.96745	1.04587
CCB	-0.00048	0.04306	-0.00321	-0.00549	-0.00065	0.00035	0.00024	-0.03208	-0.00058	-0.00088	-0.00051	-0.00125
1111160-15	-0.00179	145.39032	0.05621	0.00858	1.04073	0.00893	0.00888	151.10931	0.00177	0.06525	0.10451	0.17069
1111040-1 100X	-0.00100	0.04332	-0.00190	0.29282	0.32782	0.00006	-0.00305	61.19075	-0.00083	-0.00059	-0.00117	-0.00166
1111040-3 100X	-0.00009	0.01163	-0.00479	0.48824	0.25846	0.00002	-0.00279	101.76878	-0.00099	-0.00031	-0.00128	-0.00166
1111040-4 100X	-0.00089	0.14233	-0.00016	0.42455	2.14975	0.00007	-0.00202	104.30579	-0.00083	-0.00031	-0.00178	-0.00215
1111040-5 100X	-0.00038	0.22842	-0.00253	0.43819	1.19311	0.00019	-0.00149	91.28817	-0.00102	-0.00038	-0.00146	-0.00139
1111040-7 100X	-0.00108	0.01378	-0.00226	0.29492	0.30176	0.00025	-0.00375	60.99601	-0.00085	-0.00049	-0.00090	-0.00170
1111051-1 100X	-0.00086	0.13151	-0.00442	0.42241	1.36568	0.00034	-0.00219	88.47090	-0.00079	-0.00024	0.00081	-0.00183
1111051-2 100X	-0.00045	0.14036	-0.00479	0.43448	1.39636	0.00040	-0.00115	90.55300	-0.00092	-0.00023	-0.00159	-0.00193
CCV	0.20122	54.05090	0.52891	1.04773	1.06131	0.48863	0.55515	49.07724	0.51377	0.49522	0.98834	1.07098
CCB	0.00027	0.05307	-0.00363	-0.00511	-0.00069	0.00053	0.00016	-0.04360	-0.00032	-0.00030	-0.00044	-0.00148
IP111117-1LCS	0.08749	2.20669	1.98000	0.48454	2.07333	0.04904	-0.00572	36.26413	0.04646	0.47607	0.18979	0.25760
1110384-1 10X	0.00629	3.95297	0.00653	-0.00519	0.23396	0.00085	-0.00047	10.58145	0.11493	0.00439	0.00218	1.12350
1110384-2 10X	0.00504	3.73424	0.02022	-0.00564	0.33073	0.00077	0.00299	13.16203	0.08959	0.00458	0.00295	1.00804
1110384-5 10X	0.00381	2.24041	0.01138	0.06050	0.25802	0.00069	-0.00023	0.41708	0.00144	0.00348	0.01120	0.16274
1110384-6 10X	0.00492	1.55906	0.00922	-0.00587	0.02110	0.00074	0.00281	0.79494	0.00467	0.00343	0.00711	0.28968
1111160-3 5X	-0.00095	26.96504	0.01206	-0.00389	0.23559	0.00230	-0.00229	32.04693	-0.00041	0.01373	0.02089	0.02918
1111160-4 5X	-0.00105	26.47965	0.01343	-0.00488	0.22874	0.00230	0.00218	29.59310	-0.00072	0.01303	0.02062	0.02768
1111160-5 5X	-0.00097	24.33448	0.01280	-0.00480	0.24409	0.00229	0.00123	31.15607	-0.00059	0.01412	0.02009	0.03128
1111040-1 1000X	-0.00097	0.01480	-0.00405	0.02239	0.03207	0.00023	-0.00271	6.08404	-0.00072	-0.00111	-0.00156	-0.00234
1111040-3 1000X	-0.00089	0.00783	-0.00042	0.04341	0.02570	0.00016	-0.00115	10.40561	-0.00077	-0.00074	-0.00150	-0.00207
CCV	0.19979	53.22129	0.52207	1.03747	1.04370	0.48153	0.54918	48.51925	0.50762	0.48650	0.97528	1.05682
CCB	-0.00074	0.02953	0.00026	-0.00599	-0.00129	0.00047	-0.00184	-0.08376	-0.00080	-0.00106	-0.00123	-0.00252
1111040-4 1000X	-0.00035	0.05799	-0.00305	0.03719	0.22459	0.00063	-0.00244	10.53177	-0.00074	-0.00067	-0.00131	-0.00184
1111040-5 1000X	-0.00123	0.06063	-0.00253	0.03849	0.12407	0.00066	-0.00332	9.26493	-0.00085	-0.00147	-0.00148	-0.00216
1111040-7 1000X	-0.00050	0.03131	-0.00010	0.02365	0.02986	0.00052	-0.00175	6.11226	-0.00077	-0.00094	-0.00100	-0.00216
1111051-1 1000X	-0.00071	0.03742	-0.00600	0.03700	0.14084	0.00049	-0.00045	9.04328	-0.00066	-0.00072	-0.00118	-0.00207
1111051-2 1000X	-0.00071	0.03343	-0.00411	0.03074	0.12526	0.00041	-0.00280	8.10233	-0.00073	-0.00140	-0.00123	-0.00270
1111160-2A	-0.00280	110.65996	2.09558	0.52799	2.81759	0.05432	0.00561	218.10189	0.04852	0.51485	0.26196	0.37084
IP111117-2MB	-0.00089	0.03702	-0.00400	-0.00618	-0.00104	0.00038	-0.00306	-0.04274	-0.00059	-0.00123	-0.00082	-0.00183
IP111117-2RVS	0.00913	1.03072	0.04641	0.04196	0.04899	0.00969	0.09977	4.62370	0.01896	0.01804	0.04777	0.05089

Sample Id1	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu
IP111117-2LCS	0.08782	2.09502	1.88770	0.46291	1.99128	0.04545	-0.00055	35.72134	0.04590	0.46385	0.18661	0.25073
1111162-1	-0.00249	80.05609	0.05489	0.01457	1.04952	0.00708	0.00628	175.95062	0.00039	0.05849	0.06883	0.10650
CCV	0.19797	52.35663	0.51247	1.01434	1.02072	0.47576	0.53669	48.35025	0.50379	0.48099	0.96905	1.03291
CCB	-0.00048	0.02995	-0.00369	-0.00534	-0.00104	0.00040	-0.00010	-0.06721	-0.00085	-0.00082	-0.00079	-0.00180
1111162-1D	-0.00195	81.65905	0.06005	0.01522	1.06612	0.00761	0.00723	185.14571	0.00045	0.06128	0.07055	0.11182
1111162-1L 5X	-0.00101	15.73874	0.00900	-0.00198	0.21428	0.00198	0.00097	34.41269	-0.00046	0.01147	0.01393	0.01944
1111162-1MS	0.08835	120.08905	1.94761	0.34071	3.04486	0.05218	0.00505	211.98998	0.04667	0.51215	0.26975	0.37353
1111162-1MSD	0.08858	123.10727	1.94907	0.33731	3.06069	0.05226	0.00814	212.21317	0.04653	0.51307	0.27246	0.37448
1111162-2	-0.00159	48.83675	0.03961	0.01053	0.64875	0.00497	0.00014	125.83422	0.00024	0.03397	0.04167	0.05764
1111162-3	-0.00184	51.56705	0.03792	0.00954	0.65337	0.00509	0.00578	124.53422	0.00000	0.03580	0.04400	0.06061
1111162-4	-0.00135	39.41830	0.02265	0.00042	0.17631	0.00403	0.00139	57.05332	-0.00035	0.01515	0.01647	0.03070
1111162-5	-0.00110	31.59982	0.02444	0.00256	0.16168	0.00356	0.00170	79.81215	-0.00001	0.01456	0.01641	0.02517
1111162-6	-0.00188	45.49814	0.05384	0.00259	0.23547	0.00485	0.00302	99.20077	-0.00039	0.02327	0.03543	0.03267
1111162-7	-0.00161	37.87133	0.02934	0.00309	0.15175	0.00365	0.00235	44.94355	-0.00038	0.01291	0.01646	0.02097
CCV	0.19812	52.40565	0.51374	1.01476	1.02508	0.47405	0.53637	47.86991	0.50126	0.47930	0.96089	1.03989
CCB	-0.00051	0.05276	-0.00147	-0.00522	-0.00073	0.00052	-0.00045	-0.04475	-0.00057	-0.00051	-0.00047	-0.00162
1111162-8	-0.00105	36.53262	0.03850	0.00450	0.59686	0.00452	0.00159	109.14479	0.00011	0.03904	0.03495	0.05246
1111162-9	-0.00182	56.29993	0.03924	0.01308	0.77842	0.00556	0.00452	123.04918	0.00016	0.04107	0.04962	0.07542
1111162-10	-0.00088	35.07189	0.02149	0.00515	0.38224	0.00362	0.00162	76.73133	0.00006	0.02216	0.02888	0.03730
1111162-11	-0.00123	41.36234	0.03129	0.01087	0.47423	0.00427	0.00330	145.13822	-0.00029	0.03335	0.03578	0.04348
1111162-12	-0.00128	60.74405	0.03545	0.00954	0.62082	0.00495	0.00095	118.43909	0.00003	0.03573	0.05017	0.06224
1111162-13	-0.00257	107.73541	0.05468	0.00637	0.96361	0.00845	0.00816	111.08815	0.00042	0.06094	0.08714	0.12032
1111162-14	-0.00192	106.94015	0.05995	0.00870	1.07082	0.00861	0.00901	213.84793	0.00075	0.06414	0.08816	0.12705
1111162-15	-0.00220	51.40008	0.04393	0.00683	0.51188	0.00508	0.00136	92.70954	0.00015	0.03357	0.07011	0.06084
IP111118-2MB	-0.00071	0.07224	-0.00037	-0.00759	-0.00077	0.00035	0.00076	0.01341	-0.00089	-0.00071	-0.00097	-0.00207
IP111118-2RVS	0.00942	1.06012	0.04730	0.04516	0.04870	0.01012	0.10245	4.67579	0.01918	0.01904	0.04691	0.04826
CCV	0.19854	52.62592	0.51549	1.01622	1.02639	0.47397	0.54054	47.91404	0.50363	0.48052	0.96299	1.04531
CCB	-0.00033	0.03525	0.00163	-0.00511	-0.00067	0.00028	0.00051	-0.04778	-0.00057	-0.00037	-0.00054	-0.00121
IP111118-2LCS	0.08903	2.16544	2.03039	0.50177	2.03142	0.04857	-0.00537	36.49852	0.04683	0.47421	0.18719	0.25400
1111071-1	-0.00004	0.08891	0.00069	0.01419	0.04647	0.00033	-0.00572	46.10766	-0.00051	-0.00079	-0.00048	0.00543
1111071-1D	-0.00063	0.08974	-0.00384	0.01305	0.04543	0.00042	-0.00477	45.17340	-0.00047	-0.00062	-0.00108	0.00479
1111071-1L 5X	-0.00022	0.03164	-0.00284	-0.00313	0.00812	0.00038	-0.00019	8.94783	-0.00085	-0.00049	-0.00109	-0.00035
1111071-1MS	0.09146	2.26324	2.05783	0.53193	2.09625	0.04897	-0.00195	83.65286	0.04770	0.47496	0.18795	0.26713
1111071-1MSD	0.09135	2.28682	2.07236	0.53670	2.12041	0.04934	-0.00038	84.36862	0.04789	0.47765	0.19040	0.26954
1111104-1 10X	-0.00022	0.00438	-0.00084	5.10507	0.29870	0.00020	0.00232	28.18293	-0.00061	-0.00071	-0.00101	-0.00111
1111170-1	-0.00050	0.00713	-0.00405	0.05718	0.02543	0.00027	0.00007	16.09705	-0.00113	-0.00088	-0.00122	-0.00134
1111171-1	-0.00076	0.10879	-0.00421	0.05703	0.04688	0.00023	-0.00434	44.40672	-0.00065	-0.00075	-0.00117	-0.00011
1111173-1	-0.00070	0.01382	-0.00395	0.01133	0.04738	0.00017	-0.00184	37.53107	-0.00080	-0.00095	-0.00131	-0.00147
CCV	0.19850	52.84415	0.51024	1.01710	1.03137	0.47746	0.53823	47.77671	0.49802	0.48075	0.96572	1.04586
CCB	-0.00041	0.02936	0.00237	-0.00477	-0.00079	0.00030	-0.00210	-0.05123	-0.00052	-0.00082	-0.00075	-0.00130
1111174-1	-0.00074	0.03979	-0.00253	0.04040	0.04138	0.00035	-0.00063	78.20552	-0.00075	-0.00086	-0.00128	-0.00097
1111180-1	-0.00072	0.01867	0.00132	0.06874	0.12251	0.00041	-0.00426	152.31422	-0.00089	-0.00044	-0.00119	0.00020
1111181-1	-0.00086	0.02893	-0.00200	0.00214	0.05326	0.00044	-0.00295	56.99522	-0.00114	-0.00084	-0.00176	0.00375
1111182-1	-0.00082	0.03866	-0.00437	0.00843	0.03859	0.00051	-0.00477	69.82753	-0.00088	-0.00107	-0.00117	0.00479
1111183-1	-0.00061	0.02373	-0.00100	0.08763	0.06362	0.00055	-0.00253	98.98430	-0.00055	-0.00100	-0.00126	-0.00093
1111207-1	0.00001	0.01890	-0.00453	0.03197	0.05195	0.00040	0.00241	65.40850	-0.00096	-0.00067	-0.00030	0.02828
1111209-1	-0.00058	0.02262	-0.00374	0.19311	0.08135	0.00040	-0.00253	85.50408	-0.00105	-0.00067	-0.00117	-0.00034
1111210-1	-0.00071	0.01331	-0.00369	0.04730	0.07037	0.00033	0.00059	99.42399	-0.00091	-0.00113	-0.00120	-0.00124
1111232-1	-0.00040	0.01641	-0.00479	0.31921	-0.00052	0.00019	0.00138	-0.01683	-0.00071	-0.00092	-0.00073	0.00107
1111233-1	-0.00107	0.01134	-0.00142	0.20860	0.04347	0.00018	-0.00236	82.24135	-0.00070	-0.00065	-0.00126	-0.00138

295 of 618

Sample Id1	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu
CCV	0.19887	52.67679	0.51443	1.01587	1.02437	0.47931	0.53326	48.33672	0.50263	0.48285	0.97278	1.03784
CCB	-0.00022	0.03352	0.00200	-0.00477	-0.00083	0.00031	0.00120	-0.04792	-0.00064	-0.00064	-0.00050	-0.00144
1111234-1	-0.00081	0.08526	0.00316	0.05390	0.03568	0.00024	-0.00105	51.44877	-0.00078	-0.00094	-0.00157	0.00121
1111235-1	-0.00061	0.02437	-0.00311	0.73823	0.04088	0.00039	-0.00200	23.33323	-0.00083	-0.00027	-0.00106	0.00093
1111260-1	-0.00102	0.02871	-0.00042	0.26293	0.01735	0.00048	-0.00087	53.39166	-0.00084	-0.00079	-0.00134	0.00498
1111261-1	-0.00069	0.02343	-0.00158	0.09900	0.10995	0.00050	0.00223	65.60527	-0.00068	-0.00056	-0.00095	-0.00229
1111162-1A	-0.00232	81.05411	2.05273	0.51289	3.08409	0.05305	0.00289	170.30664	0.04798	0.52615	0.25432	0.37268
IP111118-3MB	-0.00053	0.02980	-0.00084	-0.00664	-0.00115	0.00036	-0.00444	-0.07325	-0.00119	-0.00085	-0.00120	-0.00271
IP111118-3RVS	0.00892	1.06207	0.05120	0.04375	0.04861	0.01015	0.10263	4.67811	0.01878	0.01814	0.04702	0.04867
IP111118-3LCS	0.08929	2.14000	2.00871	0.49673	1.99827	0.04801	-0.00696	36.67767	0.04652	0.47083	0.18689	0.25223
1111092-9	-0.00093	0.02554	0.00090	0.04570	0.11684	0.00024	-0.00530	34.86481	-0.00051	-0.00113	0.00089	-0.00056
1111092-10	-0.00086	0.00883	-0.00084	0.04513	0.11744	0.00022	-0.00288	35.10950	-0.00091	-0.00075	0.00071	-0.00066
CCV	0.19779	52.37920	0.51331	1.01052	1.01665	0.47579	0.52942	47.96779	0.49836	0.47984	0.96597	1.03285
CCB	-0.00040	0.03665	-0.00232	-0.00545	-0.00077	0.00042	-0.00071	-0.04979	-0.00036	-0.00106	-0.00118	-0.00206
1111106-22	-0.00062	0.02068	-0.00090	0.42501	0.02155	0.00045	-0.00252	40.03943	-0.00073	-0.00082	-0.00135	0.00042
1111106-22D	-0.00069	0.01919	-0.00132	0.40900	0.02116	0.00045	-0.00114	39.08557	-0.00070	-0.00123	-0.00075	0.00024
1111106-22L 5X	-0.00017	0.02321	-0.00142	0.07896	0.00333	0.00042	-0.00366	8.02206	-0.00067	-0.00053	-0.00081	-0.00158
1111106-22MS	0.08987	2.19451	2.04563	0.93655	2.02901	0.04780	-0.00417	75.73668	0.04698	0.46284	0.18071	0.26031
1111106-22MSD	0.09042	2.19706	2.05403	0.94501	2.02943	0.04799	-0.00452	76.01224	0.04662	0.46516	0.18156	0.26044
1111106-35	-0.00053	0.02851	-0.00110	-0.00542	-0.00036	0.00052	-0.00487	-0.02661	-0.00067	-0.00095	-0.00097	-0.00207
1111106-48	-0.00043	0.01925	-0.00442	-0.00683	-0.00127	0.00034	-0.00166	-0.06706	-0.00078	-0.00119	-0.00110	-0.00189
1111106-61	-0.00078	0.01769	-0.00163	0.05745	0.02616	0.00037	-0.00392	42.39860	-0.00092	-0.00088	-0.00067	-0.00143
1111134-1 10X	-0.00030	0.01452	-0.00363	0.13219	0.01916	0.00027	-0.00184	1.12314	-0.00075	-0.00031	0.00057	-0.00167
1111134-2 10X	-0.00035	0.01074	-0.00163	0.27301	0.04259	0.00019	-0.00453	0.77173	-0.00079	-0.00086	0.00120	-0.00207
CCV	0.19887	52.77370	0.51162	1.01852	1.02584	0.47655	0.53960	48.06303	0.50382	0.48155	0.96833	1.04667
CCB	-0.00022	0.04517	-0.00084	-0.00511	-0.00092	0.00054	-0.00054	-0.05670	-0.00038	-0.00057	-0.00083	-0.00207
1111134-3 10X	-0.00045	0.02687	-0.00632	0.13216	0.01916	0.00046	-0.00219	1.09530	-0.00061	-0.00086	0.00015	-0.00202
1111161-1 10X	-0.00063	0.03404	-0.00505	0.67938	0.12149	0.00056	-0.00271	3.21183	-0.00090	-0.00088	-0.00032	-0.00233
1111161-2 10X	-0.00013	0.04222	-0.00163	3.77067	0.25784	0.00063	-0.00106	9.36847	-0.00061	-0.00062	0.00062	-0.00220
1111161-3 10X	-0.00014	0.03337	-0.00484	0.45886	0.01439	0.00052	-0.00340	0.59964	-0.00075	-0.00048	-0.00084	-0.00248
1111161-4 10X	-0.00063	0.02976	-0.00258	0.67001	0.12015	0.00045	0.00120	3.17260	-0.00064	-0.00044	0.00016	-0.00234
1111172-1	-0.00071	0.01945	-0.00137	0.09129	0.03738	0.00051	-0.00132	130.78129	-0.00104	-0.00066	-0.00133	-0.00216
1111172-2	-0.00042	0.02703	0.00184	0.13689	0.01701	0.00036	-0.00132	14.69048	-0.00080	-0.00069	0.00057	-0.00048
1111172-3	-0.00135	0.01739	-0.00205	0.33788	0.02262	0.00044	-0.00375	155.11488	-0.00070	-0.00133	-0.00126	-0.00097
1111172-4	-0.00069	0.00785	-0.00100	0.11231	0.02207	0.00034	-0.00184	108.43553	-0.00089	-0.00051	-0.00053	-0.00139
1111172-5	-0.00061	0.00543	0.00258	0.64320	0.02528	0.00045	0.00085	H514.48691	-0.00084	0.00005	0.10358	0.00029
CCV	0.19862	52.95608	0.51629	1.02074	1.02778	0.47497	0.53702	47.96096	0.50031	0.48214	0.96309	1.05221
CCB	-0.00115	0.04698	-0.00163	-0.00500	-0.00098	0.00058	-0.00150	-0.02834	-0.00081	-0.00106	-0.00082	-0.00215
1111172-6	-0.00073	0.02421	-0.00084	0.63311	0.02674	0.00071	0.00223	498.01998	-0.00097	-0.00012	0.10288	-0.00038
1111172-10	-0.00058	0.03975	-0.00374	0.12300	0.04849	0.00073	-0.00071	65.62838	-0.00059	-0.00081	0.00366	-0.00221
1111104-1 500X	-0.00130	0.03807	-0.00168	0.09720	0.00493	0.00068	-0.00280	0.63336	-0.00089	-0.00170	-0.00206	-0.00251
1111232-1 5X	-0.00052	0.03974	-0.00542	0.05707	-0.00129	0.00067	-0.00098	-0.05166	-0.00076	-0.00082	-0.00126	-0.00197
1111235-1 5X	-0.00092	0.03172	-0.00432	0.14074	0.00722	0.00056	-0.00253	4.62834	-0.00098	-0.00129	-0.00145	-0.00198
1111238-1 5X	-0.00035	0.02418	-0.00226	-0.00603	0.00264	0.00053	-0.00002	60.97097	-0.00066	-0.00026	-0.00095	-0.00184
1111238-3 5X	-0.00082	0.01947	-0.00211	-0.00664	0.00171	0.00047	-0.00149	47.79845	-0.00072	-0.00102	-0.00162	-0.00184
1111238-3L 25X	-0.00081	0.01682	-0.00016	-0.00660	-0.00090	0.00031	-0.00245	9.55425	-0.00099	-0.00143	-0.00168	-0.00238
1111238-3A 5X	-0.00108	0.01892	-0.00205	-0.00629	0.00173	0.00040	-0.00063	83.80252	-0.00103	-0.00061	-0.00104	-0.00188
1111106-22 5X	-0.00092	0.01093	0.00116	0.07725	0.00316	0.00025	-0.00340	7.91729	-0.00060	-0.00077	-0.00138	-0.00171
CCV	0.19769	52.96682	0.52032	1.02242	1.03487	0.47531	0.54397	47.63196	0.50046	0.48087	0.96136	1.05939
CCB	-0.00037	0.03533	-0.00326	-0.00610	-0.00133	0.00054	-0.00332	-0.08376	-0.00081	-0.00133	-0.00140	-0.00238

Sample Id1	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu
1111106-22D 5X	-0.00007	0.05183	-0.00200	0.07729	0.00356	0.00075	-0.00123	7.95567	-0.00061	-0.00053	-0.00103	-0.00162
1111106-22L 25X	-0.00071	0.04063	-0.00168	0.01064	-0.00031	0.00066	-0.00019	1.57204	-0.00076	-0.00071	-0.00100	-0.00244
1111106-22MS 5X	0.01727	0.45978	0.40533	0.17898	0.41350	0.01049	-0.00386	15.30769	0.00866	0.09566	0.03700	0.05038
1111106-22MSD 5X	0.01788	0.45304	0.40449	0.18127	0.41059	0.01039	0.00204	15.43975	0.00900	0.09607	0.03768	0.04987
1111134-1	-0.00057	0.44020	-0.00584	2.01950	2.63635	0.00072	-0.00130	12.58728	-0.00085	0.00274	0.01618	0.00046
1111134-2	-0.00114	0.44035	0.00016	3.48546	2.60555	0.00064	-0.00079	9.00878	-0.00053	0.00094	0.02465	-0.00203
1111134-3	-0.00102	0.41049	0.00048	1.93561	2.48472	0.00060	-0.00252	12.45334	-0.00097	0.00294	0.01540	-0.00077
1111161-3	-0.00033	0.03285	-0.00711	4.70150	0.16064	0.00048	-0.00522	6.80245	-0.00059	-0.00007	-0.00019	-0.00299
1111172-5 10X	-0.00062	0.01583	-0.00110	0.06580	0.00152	0.00035	-0.00331	46.16911	-0.00069	-0.00119	0.01054	-0.00239
1111238-1 25X	-0.00048	0.01839	-0.00411	-0.00164	-0.00046	0.00038	-0.00340	12.44511	-0.00068	-0.00105	-0.00139	-0.00239
CCV	0.19754	52.97326	0.51554	1.02154	1.03018	0.47248	0.54404	47.51412	0.50039	0.47952	0.95788	1.05776
CCB	-0.00028	0.04597	-0.00574	-0.00332	-0.00098	0.00067	-0.00002	-0.07541	-0.00054	-0.00023	-0.00064	-0.00189
1111238-3 25X	-0.00110	0.04663	-0.00179	-0.00507	-0.00044	0.00074	0.00197	9.64848	-0.00082	-0.00106	-0.00139	-0.00229
1111238-3L 125X	-0.00032	0.04508	-0.00611	-0.00519	-0.00121	0.00067	-0.00115	1.84521	-0.00110	-0.00119	-0.00147	-0.00266
1111238-3A 25X	-0.00146	0.03947	-0.00300	-0.00675	-0.00073	0.00074	-0.00263	45.57910	-0.00073	-0.00157	-0.00219	-0.00269
1111172-6 10X	-0.00061	0.03348	-0.00316	0.05932	0.00160	0.00063	-0.00150	48.67319	-0.00075	-0.00064	0.01096	-0.00229
1111106-22A	-0.00066	2.18175	2.00720	0.91393	1.99569	0.04702	0.00170	77.30267	0.04668	0.46163	0.18086	0.25731
CRI	0.01930	0.48977	0.01259	0.41374	0.42141	0.01201	0.05423	4.95114	0.01078	0.09965	0.02060	0.05167
ICSA	-0.00046	276.24249	-0.00532	-0.00629	-0.00106	0.00116	0.00953	256.01380	-0.00022	0.00059	-0.00180	-0.00616
ICSAB	0.18791	217.56728	0.09780	1.00611	0.50785	0.46087	0.54017	257.03943	0.98904	0.46091	0.45527	0.53455
CCV	0.19826	52.81041	0.51899	1.01568	1.02205	0.47238	0.53855	47.83356	0.50063	0.47934	0.96026	1.04914
CCB	-0.00084	0.09363	-0.00374	-0.00519	-0.00088	0.00073	-0.00340	-0.01035	-0.00049	-0.00095	-0.00101	-0.00220

Sample Id1	Fe	K	Li	Mg	Mn	Mo	Na	Ni	P	Pb	Pb I	Pb II
MIXBHIGH	-0.02207	-0.15973	-0.00450	-0.11375	9.82843	9.90202	-0.10352	9.92934	49.56521	9.89083	9.90354	9.88448
MIXAHIGH	194.12482	249.33006	9.78042	493.24672	L-0.01386	0.00150	149.48137	-0.00030	0.01252	-0.00375	L-0.01670	0.00272
MIXCHIGH	-0.00441	-0.12654	-0.00412	-0.26814	0.00369	-0.00202	-0.12738	-0.00093	0.00445	0.00375	L-0.01721	0.01421
ICV	10.14157	22.91060	0.24075	25.21436	0.50557	0.49229	23.32632	0.47369	2.50807	0.50936	0.49846	0.51480
ICB	-0.00798	-0.16347	-0.00157	-0.04191	-0.00067	-0.00055	-0.17080	-0.00109	-0.01330	-0.00139	-0.00205	-0.00107
CRI	0.20410	3.76500	0.01632	5.24838	0.03257	0.02033	4.13520	0.07929	0.19189	0.00770	0.00557	0.00876
ICSA	111.19653	-0.22310	-0.00141	274.19118	0.00213	-0.00063	-0.13453	0.00080	-0.00613	-0.00244	L-0.01218	0.00241
ICSAB	111.61853	-0.23320	1.14131	275.71317	0.49617	0.97704	-0.14312	0.92383	1.00900	0.04943	0.03499	0.05664
CCV	20.58671	49.78911	0.54200	51.03779	1.00152	0.99281	49.58516	0.96095	5.11664	1.02611	1.01174	1.03328
CCB	0.00278	-0.23096	-0.00173	-0.01349	-0.00031	0.00002	-0.15591	-0.00099	-0.01250	-0.00120	-0.00183	-0.00089
F111115-1LCS	0.97512	38.30878	0.48635	37.93310	0.49136	0.97518	37.30691	0.46995	-0.00739	0.50016	0.49198	0.50424
1111179-1	-0.00263	2.10025	0.00355	1.32663	0.00392	0.00019	H162.37611	-0.00018	-0.00329	0.00044	0.00083	0.00025
1111184-1	-0.01304	1.78263	0.00062	14.51913	0.21864	-0.00030	22.93489	-0.00015	-0.01250	0.00001	L-0.00326	0.00165
IP111116-5MB	-0.01767	-0.25116	-0.00203	-0.06541	-0.00095	-0.00145	-0.18160	-0.00168	-0.01410	-0.00100	-0.00060	-0.00119
IP111116-5LCS	0.96710	36.11845	0.49764	37.98396	0.49242	0.96678	37.05491	0.46711	-0.00841	0.50278	0.49695	0.50569
1111037-3	0.00427	0.70728	0.00810	10.47089	-0.00012	-0.00096	7.03308	-0.00045	0.01855	-0.00103	0.00192	-0.00250
1111037-3D	0.00617	0.68942	0.00803	10.45647	-0.00017	-0.00239	7.04728	-0.00096	0.02242	-0.00043	-0.00087	-0.00020
1111037-3L 5X	-0.01226	-0.09136	-0.00036	2.09121	-0.00081	-0.00055	1.09365	-0.00069	-0.00716	-0.00184	-0.00197	-0.00177
1111037-3MS	0.96536	40.04533	0.54894	48.34650	0.48071	0.95175	46.54739	0.45496	0.01935	0.49441	0.48917	0.49702
1111037-3MSD	0.96716	39.97771	0.54740	48.19673	0.47904	0.94772	46.61559	0.45805	0.01775	0.49507	0.49222	0.49649
CCV	20.50515	50.07778	0.54447	51.08141	0.99663	0.99117	49.64745	0.96336	5.15773	1.01950	1.00546	1.02651
CCB	-0.00483	-0.24854	-0.00184	-0.03453	-0.00058	-0.00083	-0.16749	-0.00168	-0.00386	-0.00154	-0.00100	-0.00182
1111040-1 10X	34.49938	76.86170	2.34788	50.27847	0.61325	0.00420	H391.14647	0.00845	-0.00317	0.00250	0.00488	0.00131
1111040-3 10X	8.51980	120.00247	3.85035	82.35382	0.40864	-0.00104	H350.84695	-0.00119	L-0.41296	-0.00300	-0.00142	L-0.00378
1111040-4 10X	11.52794	147.61461	4.85583	83.63414	0.35022	-0.00243	H351.45359	-0.00143	L-0.79325	-0.00336	L-0.00354	L-0.00327
1111040-5 10X	8.85138	134.74012	4.18098	75.18923	0.34768	-0.00128	H357.64905	-0.00149	L-0.81827	-0.00237	-0.00273	-0.00218
1111040-7 10X	34.91948	77.64272	2.30985	51.09481	0.62368	0.00477	H396.18406	0.00860	-0.12256	0.00110	-0.00159	0.00244
1111051-1 10X	5.84450	128.16476	3.93228	69.14306	0.24940	-0.00202	H369.19790	0.00248	L-0.82472	-0.00157	-0.00121	-0.00175
1111051-2 10X	6.10758	135.91788	4.14821	74.42281	0.26707	-0.00173	H366.19536	-0.00177	L-0.94490	-0.00180	-0.00165	-0.00188
1111059-9	-0.00340	-0.24268	-0.00151	-0.06407	-0.00099	-0.00153	0.01860	-0.00072	-0.04628	-0.00270	-0.00111	L-0.00349
1111059-10	-0.01607	-0.25915	-0.00166	-0.07033	-0.00113	-0.00296	-0.08731	-0.00213	-0.02752	0.00091	-0.00282	0.00276
1111078-2	0.11450	0.77647	0.00235	4.46951	0.11249	-0.00112	4.97151	0.00560	0.06781	-0.00051	0.00093	-0.00123
CCV	20.43845	50.04630	0.53172	50.96233	0.99313	0.99528	48.97894	0.98783	5.11102	1.01535	1.00245	1.02180
CCB	-0.00501	-0.26114	-0.00161	-0.03654	-0.00058	0.00031	-0.14346	-0.00106	-0.01637	0.00055	-0.00125	0.00145
1111078-8	0.09569	1.01083	0.00777	12.67813	0.00052	-0.00120	7.11256	-0.00096	-0.00465	0.00027	-0.00151	0.00117
1111078-14	-0.00971	1.03282	0.00784	12.82180	0.00029	-0.00223	7.14136	-0.00088	0.00206	-0.00134	-0.00294	-0.00054
1111078-19	3.83002	1.66532	0.00300	6.36999	0.78225	-0.00096	3.16009	0.00480	0.15739	0.00155	0.00036	0.00215
1111078-35	0.49553	2.24591	0.00606	23.26533	0.38099	-0.00165	6.88886	0.00521	-0.03081	0.00490	0.00330	0.00569
IP111117-1MB	0.03733	-0.23457	-0.00189	-0.05847	-0.00044	-0.00153	-0.16365	-0.00188	-0.01421	-0.00013	-0.00160	0.00060
IP111117-1RVS	1.03673	7.75346	0.03960	5.03062	0.05041	0.10110	8.26500	0.04936	1.00934	0.05168	0.05272	0.05117
ZZZ	1.02792	35.53066	0.47139	37.26088	0.49413	0.96765	35.94834	0.47812	9.44199	0.49466	0.48805	0.49796
1110384-1	H214.13503	14.30200	0.02372	14.86216	H10.77307	0.04861	1.06314	0.05112	2.29418	57.85451	H57.94586	H57.80891
1110384-2	H208.25198	12.74357	0.02876	18.07272	9.90129	0.06532	0.75378	0.05519	3.69016	59.51297	H59.49151	H59.52368
1110384-3	79.79178	5.49023	0.02020	15.29719	1.18870	0.00391	1.07222	0.04653	2.62660	0.44458	0.43482	0.44946
1110384-4	20.76334	50.30581	0.53600	51.45648	1.00605	1.00954	50.06014	1.01322	5.16335	1.03057	1.02128	1.03521
1110384-5	0.00118	-0.21599	-0.00149	-0.02759	-0.00021	0.00015	-0.15522	-0.00137	-0.01637	-0.00045	L-0.00373	0.00119
1110384-6	50.03558	4.75494	0.01959	12.15180	0.75905	0.00715	1.18584	0.03357	2.21030	0.10931	0.10812	0.10990
1110384-7	191.57406	15.88190	0.01199	14.47443	0.85289	0.19741	9.96588	0.11867	0.80502	29.38995	H29.45888	H29.35554
1111160-2	182.46058	4.73510	0.00664	9.42117	0.73243	0.24422	0.60491	0.09060	0.56487	25.03182	H25.08005	H25.00775
1111160-2	185.43292	46.35928	0.13542	42.14101	2.05144	0.00342	8.56749	0.10970	4.71900	0.14217	0.13125	0.14762

Sample Id1	Fe	K	Li	Mg	Mn	Mo	Na	Ni	P	Pb	Pb I	Pb II
1111160-2D	173.15719	43.74308	0.13220	41.50245	1.90685	0.00301	1.93375	0.10731	4.75906	0.13517	0.12989	0.13780
1111160-2L 5X	34.28137	7.49231	0.01961	8.37843	0.42066	0.00011	1.08158	0.02243	0.92733	0.02764	0.02542	0.02874
1111160-2MS	188.42445	91.79309	0.72658	83.08846	2.37961	0.79567	43.67446	0.56945	13.99593	0.59775	0.58429	0.60447
1111160-2MSD	189.38454	95.50038	0.76231	85.35263	2.42796	0.82653	45.57038	0.59375	14.05624	0.61592	0.60080	0.62347
1111160-3	H226.73775	42.19134	0.17233	50.35944	2.19770	0.00625	1.04590	0.14210	5.09639	0.16556	0.15314	0.17177
1111160-4	H218.94144	37.02534	0.16228	49.73116	1.89056	0.00326	0.45994	0.13016	5.31127	0.20806	0.19743	0.21336
CCV	20.30477	49.57263	0.52526	50.64828	0.98702	0.99957	49.37721	0.99725	5.03379	1.00804	0.99976	1.01217
CCB	0.01069	-0.20339	-0.00165	-0.02804	-0.00031	-0.00034	-0.15895	-0.00113	-0.00625	-0.00046	-0.00237	0.00050
1111160-5	H240.29935	39.84553	0.17354	53.88682	2.25637	0.00305	0.78751	0.14105	5.58096	0.17578	0.16532	0.18100
1111160-6	94.97777	7.69132	0.05036	17.04548	1.23379	0.00027	0.09783	0.02911	1.70170	0.07597	0.07285	0.07752
1111160-7	148.17860	28.18753	0.09782	30.40824	2.36421	0.00486	0.28493	0.07052	4.15879	0.15485	0.15045	0.15704
1111160-8	159.17643	26.16999	0.10248	31.72327	2.12752	0.00309	0.33883	0.07395	3.92037	0.15424	0.14460	0.15905
1111160-9	73.35871	4.18270	0.03579	11.54652	1.63602	0.00604	0.36017	0.01064	1.45172	0.11408	0.11117	0.11554
1111160-10	79.90163	4.90764	0.03768	11.79221	1.29224	0.01202	0.06093	0.01187	1.93557	0.21159	0.21284	0.21096
1111160-11	77.43313	4.70007	0.03517	10.96085	1.30287	0.00915	0.05642	0.01040	1.86383	0.14898	0.14498	0.15098
1111160-12	92.24519	5.31215	0.04947	15.06114	2.13212	0.01476	0.95595	0.01633	1.70193	0.16749	0.16467	0.16890
1111160-13	96.20551	5.55132	0.05414	18.24584	1.14790	0.00048	0.45096	0.01475	2.07997	0.10165	0.09862	0.10316
1111160-14	166.08227	21.52576	0.07421	28.09837	2.92052	0.00346	0.36003	0.06711	3.96712	4.76306	4.76602	4.76158
CCV	19.95217	49.77104	0.52888	50.30269	0.97201	0.98618	49.44519	0.99281	5.05111	0.99292	0.99322	0.99277
CCB	0.01794	-0.23757	-0.00172	-0.02759	-0.00007	-0.00051	-0.16033	-0.00052	-0.00636	-0.00041	-0.00220	0.00048
1111160-15	H205.12295	43.83025	0.15665	48.69123	2.44937	0.00101	0.85695	0.13236	4.81865	0.26448	0.25520	0.26912
1111040-1 100X	3.56647	4.77892	0.18591	5.47695	0.06495	-0.00161	H189.28406	-0.00045	0.00262	-0.00049	-0.00203	0.00029
1111040-3 100X	0.97932	8.77651	0.35614	9.56231	0.04577	-0.00194	H283.16485	-0.00118	-0.04162	-0.00140	-0.00119	-0.00150
1111040-4 100X	1.31592	11.36570	0.47412	9.75772	0.03937	-0.00133	H280.41098	-0.00132	-0.07607	0.00055	-0.00165	0.00165
1111040-5 100X	0.98166	9.88827	0.39258	8.51880	0.03776	-0.00092	H271.77882	-0.00113	-0.07391	-0.00159	L-0.00309	-0.00084
1111040-7 100X	3.50565	4.84498	0.18863	5.47898	0.06426	-0.00083	H187.60412	-0.00045	-0.00648	-0.00108	-0.00258	-0.00034
1111051-1 100X	0.66785	9.85541	0.38263	8.00079	0.02778	-0.00182	H259.39613	0.02844	-0.06243	-0.00060	-0.00019	-0.00081
1111051-2 100X	0.64801	10.17162	0.39380	8.18926	0.02765	-0.00124	H263.15364	-0.00293	-0.06732	-0.00118	L-0.00306	-0.00024
CCV	20.42446	50.69133	0.54083	51.34891	0.99131	1.01221	49.98512	1.02423	5.16522	1.01506	1.01540	1.01489
CCB	0.00575	-0.25578	-0.00172	-0.02535	-0.00026	-0.00071	-0.15232	-0.00045	-0.01080	-0.00048	0.00082	-0.00113
IP111117-1LCS	1.01395	36.69093	0.49143	37.34970	0.48437	0.97943	36.88485	0.49855	9.44379	0.48579	0.48242	0.48747
1110384-1 10X	18.82256	0.85491	-0.00010	1.45429	1.08331	0.00449	-0.06575	0.00431	0.22286	5.24783	5.27837	5.23258
1110384-2 10X	17.48362	0.68205	0.00014	1.68614	0.95305	0.00555	-0.09193	0.00472	0.33508	4.97697	5.12823	4.90146
1110384-5 10X	15.83115	0.97834	-0.00096	1.31946	0.08101	0.01762	0.63426	0.01150	0.06440	2.59164	2.63677	2.56911
1110384-6 10X	15.02726	0.13661	-0.00134	0.85166	0.06932	0.02139	-0.10469	0.00826	0.04119	2.24992	2.29347	2.22818
1111160-3 5X	42.43797	6.84711	0.02545	10.11167	0.45378	0.00011	0.03069	0.02932	1.00751	0.03289	0.03095	0.03385
1111160-4 5X	41.68593	6.05226	0.02429	10.10154	0.39713	-0.00047	-0.05721	0.02740	1.04824	0.04148	0.03843	0.04300
1111160-5 5X	43.77559	6.29695	0.02501	10.46571	0.45262	-0.00014	-0.01225	0.02735	1.06930	0.03356	0.03149	0.03459
1111040-1 1000X	0.35629	0.07808	0.01158	0.50263	0.00576	-0.00178	19.00846	-0.00140	-0.00955	-0.00151	-0.00264	-0.00094
1111040-3 1000X	0.08843	0.35042	0.02456	0.95981	0.00397	-0.00194	32.69762	-0.00072	-0.01000	-0.00046	-0.00108	-0.00015
CCV	20.04796	49.81806	0.52983	50.63859	0.97672	0.99450	49.40902	1.00826	5.07076	1.00091	0.99732	1.00271
CCB	-0.01280	-0.28022	-0.00198	-0.06340	-0.00086	-0.00087	-0.17911	-0.00176	-0.01421	-0.00127	L-0.00389	0.00004
1111040-4 1000X	0.13092	0.50261	0.03362	0.99250	0.00351	-0.00071	32.47284	-0.00077	-0.01569	-0.00044	-0.00130	-0.00001
1111040-5 1000X	0.09153	0.40023	0.02740	0.84539	0.00314	-0.00047	31.51905	-0.00104	-0.01250	-0.00122	L-0.00409	0.00021
1111040-7 1000X	0.35224	0.05687	0.01185	0.51293	0.00586	-0.00063	19.36863	-0.00123	-0.01068	-0.00029	-0.00268	0.00090
1111051-1 1000X	0.05553	0.39336	0.02624	0.78830	0.00213	-0.00169	29.90512	0.00304	-0.02001	-0.00047	-0.00155	0.00007
1111051-2 1000X	0.04423	0.30723	0.02280	0.69717	0.00167	-0.00190	26.62638	-0.00171	-0.01864	-0.00092	L-0.00305	0.00014
1111160-2A	165.57580	81.69673	0.69875	76.73786	2.30745	0.96258	44.13355	0.59002	4.34168	0.61227	0.60842	0.61420
IP111117-2MB	0.06053	-0.27524	-0.00208	-0.05624	-0.00031	-0.00116	-0.17110	-0.00143	-0.01057	-0.00031	-0.00275	0.00092
IP111117-2RVS	1.00574	7.93829	0.03727	4.81939	0.04774	0.09578	8.21524	0.04887	0.92996	0.04820	0.04635	0.04912

Sample Id1	Fe	K	Li	Mg	Mn	Mo	Na	Ni	P	Pb	Pb I	Pb II
IP111117-2LCS	0.99759	36.01730	0.46257	36.18008	0.47242	0.94846	35.66488	0.48454	-0.00670	0.47244	0.47328	0.47202
1111162-1	173.38887	16.58762	0.10237	45.93944	1.95116	0.00465	1.38016	0.09376	3.52486	0.11348	0.10794	0.11625
CCV	19.85609	48.88201	0.51731	49.95002	0.96754	0.98338	48.77364	0.99422	4.97051	0.98728	0.98389	0.98897
CCB	-0.00459	-0.23994	-0.00188	-0.05087	-0.00063	-0.00010	-0.17072	-0.00169	-0.01159	0.00002	-0.00249	0.00127
1111162-1D	179.29489	16.97459	0.10698	46.84462	2.07473	0.00481	1.46753	0.09689	3.67181	0.11578	0.11405	0.11664
1111162-1L 5X	32.73249	2.40825	0.01513	9.30413	0.40781	-0.00014	0.08792	0.01921	0.71305	0.02252	0.02113	0.02321
1111162-1MS	179.62291	61.63801	0.67851	85.53129	2.35960	0.88983	43.27234	0.56988	3.53333	0.57717	0.57535	0.57807
1111162-1MSD	185.35968	62.18868	0.68196	86.49476	2.39815	0.88736	43.45420	0.57645	3.55433	0.57834	0.57525	0.57989
1111162-2	110.17053	15.25358	0.05815	38.01165	1.72221	0.00739	0.23466	0.05468	3.14411	0.08011	0.07617	0.08208
1111162-3	114.90041	16.27336	0.06126	40.31183	1.63390	0.00531	0.23779	0.05689	3.19459	0.08329	0.08016	0.08485
1111162-4	80.85374	6.74236	0.04326	15.65799	1.38819	0.01861	0.00609	0.01472	2.06581	0.11043	0.10787	0.11171
1111162-5	72.13103	6.74777	0.03742	14.00305	1.49038	0.00600	0.04989	0.01460	2.17218	0.09073	0.09034	0.09093
1111162-6	96.34518	8.09744	0.05797	17.97226	1.88876	0.07633	0.19962	0.03364	2.38109	0.13241	0.13144	0.13290
1111162-7	86.86039	6.85895	0.04589	16.37533	1.06819	0.00817	0.01232	0.01109	1.83153	0.10704	0.10381	0.10866
CCV	19.73368	49.17781	0.52112	49.98853	0.96102	0.98219	48.91866	0.99201	5.01168	0.98537	0.98203	0.98704
CCB	0.01545	-0.23195	-0.00177	-0.03453	-0.00021	0.00093	-0.16436	-0.00098	-0.01580	-0.00047	-0.00074	-0.00034
1111162-8	110.82371	7.40234	0.05102	35.47358	1.44335	0.00404	0.23943	0.05372	2.56831	0.06626	0.06414	0.06731
1111162-9	124.72672	22.18827	0.06955	43.17946	1.58923	0.00391	0.51904	0.06638	3.87456	0.08656	0.08160	0.08904
1111162-10	82.69691	9.00212	0.03880	24.40912	1.32137	0.00154	0.09548	0.03186	2.56300	0.05780	0.05692	0.05824
1111162-11	94.45308	12.60502	0.04666	38.11173	1.64463	0.00089	0.15867	0.04782	2.78645	0.06730	0.06465	0.06862
1111162-12	109.74127	19.28546	0.06136	41.35880	1.40826	0.00027	0.18923	0.05824	3.27962	0.08246	0.07969	0.08384
1111162-13	185.90346	32.96069	0.11548	40.87492	2.04146	0.00248	0.57712	0.10152	3.43461	0.12997	0.12253	0.13368
1111162-14	191.46514	29.77558	0.12773	51.04587	2.43486	0.00318	0.69034	0.10459	4.41163	0.13394	0.12708	0.13736
1111162-15	109.36064	13.87543	0.06390	28.07424	1.44016	0.01558	0.25467	0.54504	2.67382	0.08898	0.08413	0.09140
IP111118-2MB	0.09635	-0.27174	-0.00203	-0.03744	0.00043	-0.00071	-0.18673	-0.00161	-0.01341	0.00005	-0.00024	0.00020
IP111118-2RVS	0.97117	7.70669	0.03897	4.88426	0.04733	0.09639	8.24226	0.04741	0.98314	0.04677	0.04722	0.04655
CCV	19.68984	49.29807	0.52306	50.07456	0.95962	0.97803	49.11933	0.99538	5.05625	0.98594	0.98651	0.98566
CCB	0.01087	-0.24193	-0.00180	-0.03386	-0.00021	-0.00001	-0.16312	-0.00084	-0.00727	0.00021	-0.00021	0.00042
IP111118-2LCS	0.95518	36.39430	0.49274	37.84242	0.47932	0.96971	37.22325	0.48578	-0.00966	0.49396	0.49043	0.49572
1111071-1	0.07879	1.49964	0.00428	12.84143	0.02604	0.01030	8.47676	-0.00072	0.16581	-0.00176	-0.00089	-0.00220
1111071-1D	0.07719	1.45251	0.00407	12.61001	0.02530	0.00985	8.34356	-0.00077	0.16285	-0.00079	-0.00236	0.00000
1111071-1L 5X	0.00236	0.00708	-0.00104	2.47801	0.00448	0.00035	1.34218	-0.00133	0.02139	-0.00175	-0.00154	-0.00186
1111071-1MS	1.04152	40.83984	0.53405	51.42116	0.50446	0.97803	48.10503	0.49224	0.17037	0.49606	0.49601	0.49609
1111071-1MSD	1.04824	41.18014	0.53921	51.83139	0.50973	0.99360	48.56713	0.49688	0.16741	0.49601	0.49860	0.49471
1111104-1 10X	2.30640	21.16347	2.02384	4.80099	0.07535	-0.00087	H426.08228	-0.00147	L-0.65459	0.00000	0.00131	-0.00065
1111170-1	0.18403	12.01040	-0.00137	7.53532	0.10208	-0.00047	3.74505	-0.00057	0.02799	0.00013	-0.00174	0.00105
1111171-1	0.15259	2.38672	-0.00086	18.49571	0.03243	0.00019	55.12858	-0.00104	0.06133	0.00039	-0.00088	0.00103
1111173-1	-0.01262	1.76049	0.00310	9.46214	-0.00053	-0.00030	17.07037	-0.00052	-0.02297	-0.00108	-0.00284	-0.00020
CCV	19.78916	49.26846	0.52473	50.42564	0.96735	0.98037	49.17956	0.98028	5.06480	0.99249	0.99108	0.99319
CCB	0.00302	-0.24517	-0.00183	-0.03453	-0.00035	-0.00104	-0.16260	-0.00228	-0.00841	-0.00028	-0.00265	0.00091
1111174-1	-0.01256	0.38000	0.00067	25.73215	-0.00072	-0.00108	3.40360	-0.00230	-0.00295	-0.00010	-0.00129	0.00049
1111180-1	0.38485	2.30936	0.00315	59.00613	0.37605	-0.00079	19.55041	0.00021	0.01093	-0.00117	-0.00194	-0.00078
1111181-1	-0.01042	0.06835	0.00056	25.59644	0.00006	-0.00157	41.91635	-0.00205	0.01536	-0.00039	-0.00100	-0.00008
1111182-1	-0.00994	1.06843	0.00304	24.11521	0.00250	-0.00157	23.76543	-0.00177	0.04153	-0.00095	-0.00221	-0.00031
1111183-1	0.03947	0.77997	0.00302	45.40526	0.00071	-0.00083	10.53078	-0.00149	0.00331	-0.00030	-0.00190	0.00051
1111207-1	-0.01078	1.37900	-0.00018	23.20949	-0.00072	-0.00153	4.78668	-0.00135	0.01912	0.00008	-0.00053	0.00038
1111209-1	0.00534	2.74567	0.00236	40.89052	0.03661	-0.00063	17.92669	-0.00116	0.03698	-0.00152	-0.00270	-0.00093
1111210-1	0.02121	7.45034	0.00284	47.88688	0.00135	0.00019	31.25370	-0.00086	0.00865	-0.00059	-0.00132	-0.00022
1111232-1	0.10908	0.00246	-0.00008	-0.03744	-0.00076	-0.00243	H200.18994	-0.00100	-0.00932	-0.00049	0.00063	-0.00105
1111233-1	0.23525	0.51846	-0.00099	28.33698	0.10282	-0.00178	3.51519	-0.00037	0.02208	-0.00010	-0.00284	0.00127

306 of 618

Sample Id1	Fe	K	Li	Mg	Mn	Mo	Na	Ni	P	Pb	Pb I	Pb II
CCV	19.86248	48.85297	0.51991	50.38181	0.97099	0.97980	48.91687	0.99104	5.07837	0.99346	0.99301	0.99368
CCB	0.00278	-0.24992	-0.00191	-0.03251	-0.00040	0.00007	-0.16182	-0.00066	-0.00898	0.00050	-0.00031	0.00091
1111234-1	0.01907	5.63391	-0.00055	8.15125	0.03505	-0.00169	15.67343	0.00089	0.56362	-0.00033	L-0.00346	0.00123
1111235-1	0.24603	2.23928	0.01741	10.92999	0.04682	0.00551	H193.13667	-0.00162	0.00695	-0.00054	0.00042	-0.00102
1111260-1	0.08992	14.35845	0.01718	13.78163	0.01004	0.00641	81.15644	0.00067	2.65939	-0.00188	-0.00231	-0.00166
1111261-1	4.39809	2.53994	-0.00053	28.44628	0.53243	-0.00051	9.63695	-0.00120	0.49836	-0.00072	-0.00256	0.00020
1111162-1A	169.17966	16.26342	0.10188	45.16514	2.38132	0.96736	1.38641	0.58101	3.46430	0.59384	0.59438	0.59357
IP111118-3MB	0.00302	-0.28871	-0.00212	-0.06563	-0.00081	-0.00063	-0.18717	-0.00235	-0.01774	0.00013	-0.00228	0.00134
IP111118-3RVS	0.95949	7.71136	0.03922	4.91995	0.04747	0.09607	8.30708	0.04800	0.97891	0.04982	0.04726	0.05110
IP111118-3LCS	0.93385	36.19514	0.48869	37.65993	0.47455	0.95599	37.13559	0.48697	-0.00807	0.48563	0.48597	0.48546
1111092-9	0.00938	1.72572	0.00970	4.96709	0.03726	0.00375	20.90623	-0.00104	-0.00613	-0.00254	-0.00262	-0.00249
1111092-10	-0.01482	1.73735	0.00967	4.99133	0.03951	0.00248	20.91141	-0.00032	0.00081	0.00017	-0.00258	0.00154
CCV	19.73797	48.57610	0.51642	50.07087	0.96484	0.97737	48.72127	0.98137	5.01741	0.99133	0.98696	0.99351
CCB	0.00379	-0.24642	-0.00187	-0.03744	-0.00044	-0.00038	-0.16207	-0.00127	-0.01034	0.00085	L-0.00483	0.00369
1111106-22	-0.01625	0.81432	0.04391	16.36357	-0.00081	0.06200	H193.53172	-0.00047	-0.01512	-0.00075	-0.00112	-0.00056
1111106-22D	-0.01589	0.76423	0.04302	15.93549	-0.00021	0.06016	H186.53341	-0.00022	-0.01171	-0.00017	-0.00155	0.00052
1111106-22L 5X	-0.01732	-0.11569	0.00511	3.27364	-0.00095	0.01046	40.09154	-0.00104	-0.01398	-0.00066	0.00010	-0.00104
1111106-22MS	0.91721	49.54979	0.64450	53.21034	0.46257	1.01057	H220.10717	0.48104	-0.00852	0.48475	0.48154	0.48635
1111106-22MSD	0.91990	49.57648	0.64400	53.30299	0.46373	1.01934	H220.75517	0.48566	-0.00465	0.48295	0.48359	0.48263
1111106-35	-0.01143	-0.31515	-0.00208	-0.05154	-0.00081	-0.00010	-0.11193	-0.00138	-0.00648	-0.00009	-0.00205	0.00089
1111106-48	-0.01446	-0.29582	-0.00211	-0.06989	-0.00095	0.00015	-0.17483	-0.00103	-0.01273	-0.00023	-0.00193	0.00063
1111106-61	-0.01553	1.27975	0.03007	11.24634	-0.00081	0.00424	111.76061	-0.00152	-0.00363	0.00010	0.00109	-0.00040
1111134-1 10X	4.42059	-0.17245	0.00495	0.03283	0.06817	-0.00026	7.32078	0.00321	0.02685	-0.00046	0.00117	-0.00127
1111134-2 10X	2.66593	-0.19540	0.01219	-0.00387	0.03735	-0.00083	10.59577	-0.00064	0.18437	-0.00131	-0.00102	-0.00145
CCV	19.79072	49.07747	0.52292	50.32022	0.96512	0.98013	49.12813	0.99194	4.99823	0.98902	0.98999	0.98854
CCB	0.00201	-0.28621	-0.00199	-0.04147	-0.00040	-0.00087	-0.16431	-0.00140	-0.01102	0.00039	-0.00071	0.00093
1111134-3 10X	4.43952	-0.21062	0.00491	0.02679	0.06780	-0.00096	7.29936	0.00194	0.03220	0.00041	-0.00080	0.00102
1111161-1 10X	1.78527	-0.00515	0.07149	0.17405	0.01946	-0.00165	43.73995	-0.00032	0.08625	-0.00004	-0.00248	0.00118
1111161-2 10X	2.00318	1.05156	0.35157	0.58076	0.02406	-0.00137	H156.99668	-0.00076	-0.11211	-0.00022	-0.00149	0.00041
1111161-3 10X	2.79822	-0.20788	0.00286	-0.03050	0.02434	0.00187	3.48278	-0.00008	-0.01580	-0.00028	0.00000	-0.00042
1111161-4 10X	1.76206	-0.00702	0.07091	0.17069	0.01919	-0.00161	43.59209	-0.00086	0.08033	-0.00118	-0.00098	-0.00128
1111172-1	-0.01262	3.52903	0.02385	73.20514	0.00811	0.00694	33.19632	-0.00096	-0.01921	-0.00139	L-0.00481	0.00032
1111172-2	0.02847	1.14753	0.00355	6.67512	0.00149	0.00764	78.91210	0.00397	-0.00841	0.00159	0.00162	0.00158
1111172-3	0.01021	3.44968	0.03961	97.36969	0.00016	0.00371	130.17772	0.00016	-0.02263	0.00127	-0.00129	0.00255
1111172-4	0.04483	3.39816	0.02461	57.35845	-0.00067	0.00612	43.82851	-0.00081	-0.01967	-0.00046	-0.00132	-0.00003
1111172-5	1.20664	9.82861	0.05960	307.22770	0.00241	0.01153	H296.55721	0.25819	-0.01876	-0.00034	-0.00220	0.00059
CCV	19.73273	49.32409	0.52619	50.48355	0.96223	0.97910	49.29976	0.99376	5.03239	0.99008	0.99010	0.99006
CCB	0.00165	-0.27761	-0.00199	-0.02356	-0.00044	-0.00026	-0.14768	-0.00138	-0.01341	-0.00071	L-0.00409	0.00098
1111172-6	1.21366	9.74910	0.05908	299.29077	0.00406	0.00993	H288.16496	0.25315	-0.01307	-0.00024	-0.00072	0.00000
1111172-10	0.05916	2.51979	0.01987	48.75692	-0.00021	0.00739	50.68266	0.03266	-0.01694	0.00006	-0.00114	0.00066
1111104-1 500X	0.03204	-0.12093	0.02397	0.11743	0.00052	-0.00235	16.63845	-0.00232	-0.02467	0.00029	L-0.00484	0.00285
1111232-1 5X	0.00754	-0.30293	-0.00191	-0.04863	-0.00099	-0.00186	41.54285	-0.00104	-0.01705	0.00053	-0.00082	0.00120
1111235-1 5X	0.03579	0.06286	0.00092	2.19743	0.00861	0.00048	40.60415	-0.00071	-0.00886	-0.00086	L-0.00343	0.00042
1111238-1 5X	-0.01738	62.67949	-0.00193	22.42928	-0.00053	-0.00133	H296.25812	-0.00133	-0.00818	-0.00064	-0.00056	-0.00068
1111238-3 5X	-0.01767	48.63804	-0.00197	18.49910	-0.00076	-0.00231	H226.31251	-0.00203	-0.01102	-0.00086	L-0.00384	0.00063
1111238-3L 25X	-0.01904	7.43648	-0.00212	3.73699	-0.00104	-0.00100	49.23102	-0.00108	-0.00886	-0.00012	L-0.00349	0.00156
1111238-3A 5X	-0.01607	91.96081	0.59245	54.93430	0.00057	-0.00178	H252.30849	-0.00101	-0.01125	-0.00020	-0.00107	0.00023
1111106-22 5X	-0.01809	-0.10995	0.00499	3.24315	-0.00104	0.01087	39.48559	-0.00127	-0.01466	-0.00111	-0.00280	-0.00027
CCV	19.72539	49.60118	0.52912	50.43880	0.96097	0.97790	49.32003	0.99535	4.97004	0.98821	0.98900	0.98782
CCB	-0.01321	-0.31989	-0.00215	-0.06205	-0.00095	-0.00108	-0.17928	-0.00216	-0.01444	-0.00092	-0.00163	-0.00057

Sample Id1	Fe	K	Li	Mg	Mn	Mo	Na	Ni	P	Pb	Pb I	Pb II
1111106-22D 5X	-0.00965	-0.12180	0.00522	3.27364	-0.00049	0.01099	39.73097	-0.00013	-0.00773	0.00061	0.00051	0.00066
1111106-22L 25X	-0.01541	-0.25528	-0.00094	0.61703	-0.00086	0.00138	7.47138	-0.00006	-0.00568	0.00048	-0.00150	0.00147
1111106-22MS 5X	0.17867	7.62413	0.10152	10.80990	0.09555	0.20614	47.89911	0.10068	-0.01614	0.09850	0.09568	0.09991
1111106-22MSD 5X	0.17909	7.58191	0.10063	10.80585	0.09592	0.20749	47.85269	0.10258	-0.01137	0.09897	0.10060	0.09816
1111134-1	47.46374	4.61331	0.10116	0.99496	0.68748	0.00404	94.36589	0.03090	0.47589	0.00205	0.00225	0.00195
1111134-2	28.11546	3.96416	0.21053	0.63650	0.38187	0.00285	128.16128	0.00352	2.05660	0.00132	-0.00003	0.00200
1111134-3	47.70800	4.25297	0.10094	0.98086	0.68772	0.00441	93.23777	0.03281	0.49391	0.00256	0.00110	0.00329
1111161-3	29.51618	1.18777	0.06627	0.28417	0.25258	0.03056	41.04148	0.00413	0.08716	-0.00058	0.00010	-0.00091
1111172-5 10X	0.12456	0.29612	0.00223	29.03511	-0.00063	-0.00014	33.89894	0.02635	-0.02137	-0.00146	-0.00226	-0.00105
1111238-1 25X	-0.01488	9.88107	-0.00202	4.64545	-0.00095	-0.00161	73.41841	-0.00161	-0.00659	-0.00016	-0.00031	-0.00008
CCV	19.64466	49.58724	0.52913	50.22034	0.95608	0.97366	49.42609	0.99439	5.06386	0.98627	0.98883	0.98500
CCB	-0.00941	-0.29482	-0.00204	-0.04818	-0.00067	-0.00001	-0.17364	-0.00094	-0.00909	0.00004	0.00170	-0.00079
1111238-3 25X	-0.01244	7.50604	-0.00196	3.77243	-0.00076	-0.00051	49.57905	-0.00071	-0.00807	0.00003	-0.00171	0.00089
1111238-3L 125X	-0.01541	0.92974	-0.00214	0.70434	-0.00090	-0.00128	9.23769	-0.00122	-0.01205	-0.00209	L-0.00432	-0.00098
1111238-3A 25X	-0.01613	47.88348	0.52308	40.53477	0.00025	-0.00243	89.40303	-0.00240	-0.01626	-0.00092	L-0.00636	0.00179
1111172-6 10X	0.12003	0.35803	0.00256	30.16341	-0.00040	-0.00034	36.25530	0.02840	-0.02069	-0.00085	-0.00132	-0.00061
1111106-22A	0.90930	51.89447	0.67101	55.04164	0.46021	1.00447	H218.34246	0.48390	-0.06174	0.47075	0.47857	0.46685
CRI	0.19100	3.75396	0.01523	5.18462	0.03082	0.02131	4.21679	0.08321	0.18460	0.00718	0.00606	0.00774
ICSA	105.05472	-0.30367	-0.00181	270.19279	0.00052	-0.00128	-0.14892	-0.00010	0.00172	-0.00099	L-0.01424	0.00563
ICSAB	105.47090	-0.26625	1.06931	269.00427	0.47067	0.95822	-0.15705	0.95921	0.98429	0.04795	0.03665	0.05359
CCV	19.70065	49.19546	0.52392	50.31953	0.95691	0.97329	49.24112	0.99291	5.01835	0.98069	0.98349	0.97929
CCB	0.01509	-0.27835	-0.00188	0.01672	-0.00053	-0.00051	-0.16434	-0.00125	-0.00932	-0.00226	L-0.00668	-0.00004

Sample Id1	S	Sb	Se	Se I	Se II	Si	Sn	Sr	Th	Ti	Tl	U
MIXBHIGH	-0.00023	1.99849	4.96340	4.98130	4.95447	49.63273	9.94090	9.95307	1.97721	9.88603	H5.00749	-0.08923
MIXAHIGH	0.00136	0.00723	-0.00607	L-0.02381	0.00279	-0.01626	0.00309	0.00569	-0.03272	-0.00142	0.00449	0.11053
MIXCHIGH	49.64920	0.00120	-0.00129	-0.00298	-0.00044	L-0.05564	0.02008	-0.00296	0.10399	0.00525	0.00379	49.78764
ICV	2.55499	0.23934	0.51709	0.51113	0.52007	2.54802	0.51504	0.24912	0.14226	0.25080	0.25225	2.45383
ICB	-0.03195	-0.00055	-0.00051	L-0.00513	0.00180	-0.01504	-0.00264	-0.00176	-0.01075	-0.00300	-0.00289	-0.03295
CRI	0.19966	0.11830	0.01255	0.01540	0.01113	0.10691	0.09935	0.02048	0.00420	0.01981	0.02398	0.18215
ICSA	0.03150	-0.00213	-0.00143	L-0.01828	0.00699	-0.01993	0.00247	-0.00033	-0.03702	-0.00077	0.00345	0.03242
ICSAB	1.10119	0.58046	0.05040	0.03859	0.05629	0.98769	1.05198	1.02251	0.00566	0.98929	0.10271	10.27392
CCV	5.29604	0.50306	1.06671	1.06385	1.06813	5.16204	1.05193	0.51799	0.30860	0.50608	0.53525	5.11756
CCB	-0.03195	-0.00084	-0.00091	-0.00318	0.00023	-0.01131	-0.00162	-0.00155	-0.00373	-0.00280	-0.00054	-0.03330
F111115-1LCS	-0.02402	0.48310	2.03927	2.02367	2.04706	2.04419	0.51168	0.50569	-0.02935	0.49200	2.08138	-0.05284
1111179-1	42.37807	-0.00354	0.00240	0.00275	0.00223	4.59823	0.00043	0.28550	-0.00414	-0.00257	0.00043	-0.03432
1111184-1	3.43293	-0.00127	-0.00278	-0.00274	-0.00280	4.23998	0.00043	1.14048	-0.01569	-0.00312	-0.00046	-0.04084
IP111116-5MB	-0.02878	-0.00312	-0.00270	-0.00482	-0.00165	-0.01573	0.00104	-0.00191	-0.00817	-0.00305	0.00211	-0.03534
IP111116-5LCS	-0.01926	0.48190	2.16020	2.13913	2.17072	2.07415	0.51168	0.50042	-0.03037	0.49211	2.09193	-0.03876
1111037-3	6.74562	-0.00410	0.00137	0.00092	0.00159	9.81523	-0.00121	0.16712	-0.01757	-0.00236	0.00676	-0.03845
1111037-3D	6.75201	-0.00215	0.00144	0.00609	-0.00088	9.81555	0.00002	0.16732	-0.01473	-0.00253	-0.00033	-0.03639
1111037-3L 5X	1.32510	-0.00201	-0.00232	0.00162	-0.00429	1.98910	0.00166	0.03305	-0.00664	-0.00282	0.00369	-0.03603
1111037-3MS	6.67063	0.47880	2.13601	2.12943	2.13929	11.63578	0.50636	0.66628	-0.03409	0.48215	2.08714	-0.04562
1111037-3MSD	6.60840	0.48223	2.15246	2.13366	2.16184	11.64792	0.50821	0.67146	-0.03620	0.48093	2.08452	-0.04871
CCV	5.36138	0.50520	1.06304	1.06616	1.06148	5.16279	1.05007	0.52013	0.31136	0.50456	0.54515	5.12243
CCB	-0.03512	-0.00342	-0.00228	-0.00279	-0.00203	-0.01220	-0.00182	-0.00169	-0.00376	-0.00286	-0.00141	-0.02952
1111040-1 10X	3.41225	-0.00176	-0.00055	0.00009	-0.00088	2.02267	0.00330	H37.97365	-0.02039	-0.00501	0.00253	-0.02418
1111040-3 10X	6.60202	-0.00257	-0.00119	-0.00212	-0.00073	1.63065	-0.00202	H46.79168	-0.03920	-0.00739	0.00307	-0.06141
1111040-4 10X	0.53289	-0.00368	-0.00312	-0.00487	-0.00225	0.55187	-0.00284	H52.36942	-0.04093	-0.00726	0.00574	-0.06140
1111040-5 10X	0.92496	-0.00508	-0.00369	L-0.00507	-0.00301	0.39839	-0.00162	H49.62221	-0.04074	-0.00666	0.00092	-0.06987
1111040-7 10X	3.37088	-0.00249	0.00002	L-0.00673	0.00338	2.04455	0.00228	H37.68866	-0.03176	-0.00540	-0.00150	-0.04643
1111051-1 10X	0.31232	-0.00190	-0.00227	-0.00231	-0.00225	0.08891	-0.00141	H50.59978	-0.04412	-0.00659	0.00410	-0.06439
1111051-2 10X	0.33136	-0.00238	-0.00451	-0.00386	-0.00484	0.10337	-0.00141	H51.67734	-0.03499	-0.00643	0.00351	-0.06766
1111059-9	-0.03354	-0.00367	-0.00386	-0.00273	-0.00441	-0.01612	-0.00572	0.00363	-0.00045	-0.00281	0.00469	-0.03089
1111059-10	-0.02878	-0.00429	-0.00115	-0.00306	-0.00020	-0.01748	0.00104	-0.00073	-0.00131	-0.00302	0.00057	-0.05216
1111078-2	3.86898	-0.00185	-0.00265	L-0.00666	-0.00064	9.75861	-0.00490	0.08274	-0.00691	0.00383	0.00101	-0.02994
CCV	5.33429	0.50204	1.05269	1.05546	1.05131	5.13370	1.05708	0.51222	0.30807	0.49976	0.52493	5.09599
CCB	-0.03671	-0.00114	0.00001	0.00111	-0.00054	-0.01522	-0.00428	-0.00171	-0.00355	-0.00281	-0.00442	-0.03501
1111078-8	6.60840	-0.00397	0.00068	0.00147	0.00029	9.17191	-0.00121	0.21591	-0.01983	-0.00365	0.00352	-0.04400
1111078-14	6.66584	-0.00331	-0.00218	-0.00155	-0.00250	9.27850	-0.00551	0.21764	-0.01298	-0.00358	0.00057	-0.05457
1111078-19	7.15101	-0.00321	-0.00077	-0.00047	-0.00091	16.62426	-0.00089	0.11012	-0.00584	0.24715	-0.00057	-0.02835
1111078-35	12.69387	-0.00195	-0.00004	-0.00247	0.00118	4.18434	0.00186	0.30071	-0.02391	-0.00276	0.00322	-0.02299
IP111117-1MB	-0.02402	-0.00472	-0.00209	-0.00350	-0.00138	-0.01093	0.00227	-0.00177	-0.00185	-0.00279	-0.00110	-0.03538
IP111117-1RVS	1.03610	0.09316	0.05217	0.05075	0.05288	0.27932	0.10280	0.04838	-0.01171	0.04764	0.10457	0.48679
ZZZ	9.76230	0.46735	1.90049	1.89389	1.90379	1.45103	0.51497	0.49533	-0.04051	0.48931	2.01480	9.91017
11110384-1	2.62813	0.00871	0.00401	L-0.02357	0.01779	14.37957	0.00652	0.32960	0.17947	0.39871	0.00521	0.11476
11110384-2	2.53432	0.00435	0.00758	L-0.01474	0.01872	12.44720	0.00604	0.37804	0.17795	0.63488	0.00755	0.11361
11110384-3	19.28568	0.00727	0.00193	L-0.00876	0.00727	16.69345	0.02392	1.10264	0.02429	0.40295	0.00624	-0.01279
3084	5.34226	0.50660	1.06764	1.06943	1.06675	5.17714	1.08260	0.51854	0.32125	0.50260	0.54116	5.11194
3085	-0.03354	-0.00525	0.00056	-0.00381	0.00274	-0.01427	-0.00060	-0.00157	0.00005	-0.00256	-0.00207	-0.03501
11110384-4	23.09879	0.00179	0.00238	-0.00456	0.00585	11.60040	0.00565	1.26528	0.01635	0.26053	-0.00042	-0.00935
11110384-5	1.34416	0.00860	0.00851	L-0.01694	0.02122	0.80172	0.00154	0.15162	0.02235	1.15197	0.01031	0.03537
11110384-6	2.08608	0.00448	0.01130	L-0.00718	0.02053	6.16540	0.00955	0.16746	0.02269	0.78099	0.00617	0.01891
1111160-2	7.86477	-0.00141	0.02006	L-0.00698	0.03356	0.67566	0.00783	0.67957	0.09389	0.14526	0.01093	0.31282

Sample Id1	S	Sb	Se	Se I	Se II	Si	Sn	Sr	Th	Ti	Tl	U
1111160-2D	7.73061	-0.00023	0.02157	-0.00497	0.03482	0.78891	0.01008	0.65457	0.08634	0.14909	0.00613	0.30951
1111160-2L 5X	1.50775	-0.00151	0.00433	0.00155	0.00572	0.12896	-0.00145	0.13666	0.01628	0.02685	0.00262	0.02918
1111160-2MS	16.74781	0.16148	1.89492	1.87706	1.90384	1.10385	0.49835	1.18808	0.06535	0.30618	1.94842	9.84770
1111160-2MSD	17.73329	0.16846	1.97017	1.95950	1.97550	1.19070	0.52074	1.21266	0.06386	0.29868	2.05568	10.37814
1111160-3	4.64759	0.00374	0.00678	L-0.01740	0.01885	16.14806	0.00751	0.79698	0.13052	0.42514	0.01447	0.05537
1111160-4	4.32589	0.00118	0.00214	L-0.02279	0.01459	10.54170	0.01440	0.67688	0.13113	0.31559	0.01236	0.06411
CCV	5.25141	0.50807	1.04681	1.04320	1.04861	5.08471	1.05256	0.51028	0.30875	0.49186	0.53556	5.02454
CCB	-0.02402	-0.00495	-0.00190	L-0.00538	-0.00015	-0.01580	0.00227	-0.00159	-0.00511	-0.00294	-0.00071	-0.03124
1111160-5	5.46339	0.00214	0.00232	L-0.02580	0.01636	10.10105	0.00989	0.77321	0.13440	0.31875	0.01217	0.06570
1111160-6	16.47582	-0.00129	0.10784	0.09896	0.11227	4.91344	-0.00060	0.28501	0.04701	0.17641	0.00487	0.45544
1111160-7	22.17507	-0.00189	0.10671	0.08870	0.11570	8.03459	0.00626	0.45716	0.06905	0.26862	0.00523	1.12489
1111160-8	21.12606	0.00075	0.07823	0.05702	0.08882	7.40827	0.00505	0.47499	0.07995	0.25240	0.00684	0.95187
1111160-9	35.87952	-0.00159	0.08796	0.07767	0.09310	4.54584	0.00467	0.34460	0.02855	0.22725	-0.00020	3.46793
1111160-10	23.47754	-0.00340	0.08726	0.07956	0.09110	4.84712	0.00427	0.19510	0.03248	0.21862	0.00679	3.00633
1111160-11	24.26943	-0.00464	0.08440	0.07173	0.09073	4.17450	0.00431	0.19343	0.04616	0.18319	0.00340	2.79838
1111160-12	37.08080	-0.00079	0.08011	0.07361	0.08335	5.41068	0.00711	0.39241	0.07769	0.24148	0.00139	7.36607
1111160-13	22.97742	-0.00176	0.07829	0.06979	0.08253	3.41291	0.00661	0.52989	0.04531	0.14226	0.00489	1.65247
1111160-14	H65.04280	0.00299	0.07015	0.05136	0.07952	7.33652	0.00505	0.34992	0.04363	0.24869	0.00809	0.88947
CCV	5.20679	0.50532	1.04597	1.05056	1.04368	5.03412	1.05113	0.51074	0.30317	0.48557	0.52754	5.03269
CCB	-0.02719	-0.00281	0.00293	0.00559	0.00159	-0.01528	-0.00510	-0.00155	0.00281	-0.00272	-0.00066	-0.03537
1111160-15	4.97256	0.00016	0.01118	L-0.02357	0.02852	10.22681	0.01155	0.68786	0.10483	0.30039	0.00984	0.21256
1111040-1 100X	0.27582	-0.00098	-0.00067	-0.00416	0.00108	0.19285	-0.00408	5.14802	-0.00548	-0.00337	0.00308	-0.03469
1111040-3 100X	0.57416	-0.00171	-0.00423	L-0.00758	-0.00256	0.15565	-0.00326	8.95585	-0.00874	-0.00338	-0.00340	-0.03259
1111040-4 100X	0.01088	-0.00274	-0.00438	L-0.00631	-0.00342	0.04009	-0.00203	H13.72249	-0.01020	-0.00333	0.00058	-0.04724
1111040-5 100X	0.05212	-0.00238	-0.00417	L-0.00518	-0.00366	0.02554	-0.00490	H10.41484	-0.00692	-0.00329	0.00260	-0.02882
1111040-7 100X	0.27741	-0.00336	-0.00276	L-0.00523	-0.00153	0.18389	-0.00469	5.16946	-0.00317	-0.00332	-0.00130	-0.03809
1111051-1 100X	-0.00340	-0.00492	-0.00169	-0.00238	-0.00134	-0.00681	-0.00531	H11.07674	-0.00680	-0.00353	-0.00399	-0.04782
1111051-2 100X	-0.00181	-0.00385	-0.00333	L-0.00553	-0.00224	-0.00582	-0.00039	H11.34942	-0.00082	-0.00339	-0.00059	-0.03545
CCV	5.34863	0.51660	1.06777	1.08125	1.06104	5.12552	1.07623	0.52198	0.31999	0.49306	0.54804	5.12971
CCB	-0.03195	-0.00134	-0.00312	L-0.00564	-0.00186	-0.01750	-0.00285	-0.00135	0.00729	-0.00265	0.00084	-0.03090
IP111117-1LCS	9.73830	0.48556	1.92558	1.94774	1.91451	1.67408	0.52484	0.51125	-0.02961	0.47649	2.09764	10.12625
1110384-1 10X	0.22664	-0.00059	-0.00111	-0.00469	0.00067	1.21235	-0.00474	0.03239	0.02463	0.03580	0.00198	-0.02998
1110384-2 10X	0.20284	-0.00249	-0.00131	L-0.00831	0.00219	1.03774	0.00036	0.03538	0.02094	0.05643	-0.00189	-0.02186
1110384-5 10X	0.09020	-0.00229	-0.00255	L-0.00882	0.00058	0.04407	-0.00380	0.01292	0.00927	0.10685	0.00158	-0.02691
1110384-6 10X	0.16159	-0.00381	-0.00272	L-0.00558	-0.00129	0.48724	-0.00089	0.01480	0.00588	0.07173	-0.00171	-0.03598
1111160-3 5X	0.88844	0.00028	-0.00053	L-0.00733	0.00286	2.71876	-0.00069	0.16082	0.02900	0.07597	0.00247	-0.01173
1111160-4 5X	0.84241	-0.00168	-0.00223	L-0.01255	0.00292	1.93843	0.00220	0.13784	0.03046	0.05997	0.00109	-0.01946
1111160-5 5X	1.01069	-0.00173	-0.00067	L-0.00699	0.00249	1.80263	0.00077	0.15214	0.02577	0.05938	0.00477	-0.02122
1111040-1 1000X	-0.00498	-0.00446	-0.00225	-0.00480	-0.00098	-0.00278	-0.00162	0.52489	0.00212	-0.00305	0.00078	-0.04281
1111040-3 1000X	0.02040	-0.00208	-0.00125	0.00003	-0.00188	-0.00696	-0.00141	0.94749	0.00123	-0.00316	-0.00068	-0.03713
CCV	5.25938	0.50977	1.04557	1.05492	1.04090	5.03584	1.06595	0.51322	0.32344	0.48564	0.53895	5.01061
CCB	-0.03036	-0.00440	-0.00005	-0.00255	0.00121	-0.02481	-0.00121	-0.00193	0.00568	-0.00311	-0.00112	-0.04221
1111040-4 1000X	-0.02878	-0.00244	-0.00075	-0.00244	0.00008	-0.01503	-0.00326	1.48292	0.00331	-0.00287	-0.00151	-0.03613
1111040-5 1000X	-0.02243	-0.00323	-0.00234	L-0.00685	-0.00009	-0.01793	-0.00121	1.10888	0.00462	-0.00303	-0.00078	-0.04057
1111040-7 1000X	-0.00340	-0.00176	-0.00035	0.00056	-0.00081	-0.00253	-0.00244	0.53429	0.00842	-0.00303	-0.00302	-0.03628
1111051-1 1000X	-0.03354	-0.00355	-0.00148	-0.00048	-0.00197	-0.02387	0.00063	1.17886	0.00385	-0.00315	0.00241	-0.03951
1111051-2 1000X	-0.03036	-0.00263	-0.00066	-0.00357	0.00079	-0.02348	-0.00756	1.05153	0.00588	-0.00304	0.00030	-0.04294
111160-2A	7.11429	0.49891	2.19525	2.19532	2.19522	10.03314	0.52806	1.11027	0.13740	0.71233	2.08317	0.28103
IP111117-2MB	-0.03671	-0.00416	-0.00135	L-0.00515	0.00054	-0.01552	-0.00203	-0.00180	0.00752	-0.00302	-0.00550	-0.04569
IP111117-2RVS	0.94877	0.09289	0.04425	0.04090	0.04593	0.25293	0.09911	0.04825	0.00079	0.04471	0.09508	0.46827

Sample Id1	S	Sb	Se	Se I	Se II	Si	Sn	Sr	Th	Ti	Tl	U
IP111117-2LCS	-0.02085	0.46440	1.81563	1.82785	1.80953	1.58262	0.50884	0.49355	-0.02160	0.46576	2.03055	-0.04874
1111162-1	9.72390	0.00025	0.00826	L-0.01484	0.01980	7.56090	0.00283	0.69702	0.09986	0.21790	0.00260	0.15143
CCV	5.14624	0.50069	1.02826	1.03622	1.02429	4.96312	1.05525	0.50283	0.31130	0.47901	0.53153	4.89828
CCB	-0.03829	-0.00274	-0.00112	-0.00450	0.00057	-0.02488	-0.00551	-0.00179	0.00217	-0.00295	0.00373	-0.03535
1111162-1D	12.22240	-0.00019	0.00413	L-0.02392	0.01814	7.24879	0.01022	0.72435	0.10219	0.20791	0.00308	0.15427
1111162-1L 5X	1.94782	-0.00222	0.00182	-0.00365	0.00456	0.62675	0.00019	0.14234	0.02922	0.02590	0.00191	0.00483
1111162-1MS	10.78830	0.30088	1.84014	1.84350	1.83846	10.37950	0.50396	1.21068	0.09005	0.42252	2.00681	0.15679
1111162-1MSD	9.30962	0.30274	1.83299	1.81127	1.84383	9.75874	0.50131	1.21434	0.09624	0.40737	2.00568	0.16456
1111162-2	4.67785	0.00019	0.02888	0.01591	0.03536	3.77316	0.00042	0.35355	0.06304	0.18337	0.00037	0.26760
1111162-3	4.25742	-0.00218	0.02002	0.00120	0.02942	3.40099	0.00349	0.35611	0.05632	0.18536	0.00137	0.24343
1111162-4	11.20153	-0.00086	0.09934	0.08714	0.10543	2.53764	0.00174	0.19827	0.04787	0.10028	0.00379	1.59525
1111162-5	15.24059	-0.00281	0.19421	0.18745	0.19759	3.67278	0.00106	0.16980	0.03603	0.15826	0.00573	1.11519
1111162-6	13.84290	0.00102	0.20100	0.18977	0.20660	2.34470	0.00194	0.45231	0.04388	0.10661	0.00447	3.45400
1111162-7	11.85529	-0.00273	0.12540	0.10959	0.13330	2.52890	0.00172	0.10885	0.03802	0.11846	0.00010	1.25731
CCV	5.18608	0.49915	1.02853	1.03156	1.02702	4.95415	1.04846	0.50438	0.30277	0.47768	0.53100	4.93826
CCB	-0.03195	-0.00084	0.00057	0.00048	0.00062	-0.02128	-0.00264	-0.00162	0.00350	-0.00288	0.00059	-0.03365
1111162-8	2.72989	-0.00063	0.00207	L-0.01062	0.00840	1.94173	0.00188	0.36507	0.05550	0.16048	0.00690	0.09310
1111162-9	3.93583	-0.00023	0.00623	L-0.01220	0.01544	3.12993	0.00515	0.40242	0.06330	0.16603	0.00375	0.08466
1111162-10	4.10776	0.00156	0.01877	0.01101	0.02264	3.69563	0.00450	0.19639	0.04782	0.19010	0.00496	0.12083
1111162-11	2.24024	-0.00024	0.00282	L-0.00555	0.00701	5.45009	0.00263	0.29708	0.04504	0.21503	-0.00023	0.00263
1111162-12	2.52319	0.00053	0.00272	L-0.01257	0.01036	3.48203	0.00062	0.28852	0.05954	0.18216	0.00630	0.02414
1111162-13	3.96449	-0.00216	0.00223	L-0.02354	0.01509	3.83125	0.00393	0.51324	0.10419	0.15388	0.00458	0.03236
1111162-14	5.71207	0.00182	0.00277	L-0.02614	0.01720	4.12839	0.00247	0.62820	0.10010	0.17906	0.00087	0.03475
1111162-15	5.14783	-0.00163	0.02523	0.00435	0.03566	2.82321	-0.00035	0.32760	0.06928	0.13790	-0.00267	0.59947
IP111118-2MB	-0.03195	-0.00250	-0.00212	-0.00199	-0.00218	-0.02109	0.00330	-0.00160	0.00435	-0.00292	-0.00218	-0.03645
IP111118-2RVS	1.00593	0.09554	0.05337	0.05377	0.05316	0.27289	0.09993	0.04810	0.00106	0.04482	0.10323	0.46589
CCV	5.19245	0.50610	1.03330	1.04218	1.02886	4.96673	1.04599	0.50656	0.31235	0.47669	0.53770	4.93794
CCB	-0.03354	-0.00170	0.00116	0.00029	0.00159	-0.01831	-0.00142	-0.00161	0.00418	-0.00262	-0.00191	-0.03468
IP111118-2LCS	-0.03829	0.49126	2.15666	2.17627	2.14686	2.03747	0.51683	0.50235	-0.01933	0.47787	2.10469	-0.05386
1111071-1	10.44407	-0.00376	-0.00221	-0.00388	-0.00138	3.19613	-0.00039	0.13405	-0.01056	-0.00116	0.00173	-0.03095
1111071-1D	10.19756	-0.00351	-0.00255	L-0.00584	-0.00091	3.13586	-0.00101	0.13201	-0.00652	-0.00131	-0.00163	-0.03438
1111071-1L 5X	2.00026	-0.00267	-0.00020	-0.00027	-0.00016	0.61078	-0.00162	0.02512	0.00065	-0.00277	-0.00621	-0.03227
1111071-1MS	10.39604	0.49677	2.17546	2.19354	2.16642	5.21358	0.52012	0.64155	-0.01793	0.47671	2.13583	-0.04018
1111071-1MSD	10.46808	0.49936	2.18765	2.21254	2.17522	5.26003	0.52422	0.64886	-0.03419	0.48227	2.15045	-0.04122
1111104-1 10X	1.83978	-0.00354	-0.00025	-0.00181	0.00052	1.99087	-0.00408	H12.33614	-0.00325	-0.00273	0.00281	-0.03658
1111170-1	12.65698	-0.00397	-0.00160	-0.00244	-0.00118	5.86440	-0.00305	0.04760	-0.00373	-0.00286	-0.00147	-0.03685
1111171-1	34.77584	-0.00506	-0.00272	L-0.00554	-0.00132	6.52201	-0.00224	0.09898	-0.01713	0.00056	0.00160	-0.04507
1111173-1	8.77238	-0.00170	0.00139	0.00287	0.00065	11.10802	-0.00387	0.13297	-0.00653	-0.00313	-0.00078	-0.04427
CCV	5.25620	0.50194	1.04206	1.04914	1.03852	5.02450	1.05154	0.50619	0.30879	0.48622	0.52750	4.98431
CCB	-0.03829	-0.00483	0.00065	0.00105	0.00044	-0.01864	-0.00121	-0.00165	-0.00018	-0.00284	0.00194	-0.03192
1111174-1	8.64291	-0.00483	0.00144	0.00489	-0.00029	5.90449	-0.00367	0.09772	-0.02002	-0.00312	-0.00058	-0.04496
1111180-1	46.64182	-0.00348	0.00159	0.00390	0.00043	8.26772	0.00227	0.41076	-0.02986	-0.00345	-0.00099	-0.03562
1111181-1	26.81550	-0.00519	0.00277	0.00565	0.00133	8.46422	0.00207	0.10710	-0.01670	-0.00299	0.00143	-0.03912
1111182-1	14.65721	-0.00091	0.00025	-0.00066	0.00070	7.65565	0.00002	0.18466	-0.01666	-0.00310	0.00113	-0.03638
1111183-1	10.61858	-0.00219	0.00361	0.00552	0.00266	8.72414	0.00043	0.17508	-0.03621	-0.00358	0.00040	-0.04328
1111207-1	7.16218	-0.00098	-0.00091	-0.00292	0.00010	7.80964	-0.00203	0.15015	-0.01504	-0.00303	-0.00087	-0.02711
1111209-1	33.11816	-0.00225	0.00009	0.00092	-0.00032	6.82260	0.00104	0.19357	-0.02453	-0.00294	-0.00111	-0.04222
1111210-1	42.54091	-0.00304	0.00280	0.00129	0.00356	6.41539	-0.00039	0.19198	-0.03558	-0.00349	-0.00587	-0.04601
1111232-1	8.90826	-0.00221	0.00134	0.00072	0.00166	7.17306	0.00084	-0.00175	0.00315	-0.00250	0.00478	-0.03440
1111233-1	7.48308	-0.00392	-0.00006	-0.00372	0.00177	6.17138	-0.00080	0.12120	-0.02442	-0.00296	0.00210	-0.04272

Sample Id1	S	Sb	Se	Se I	Se II	Si	Sn	Sr	Th	Ti	Tl	U
CCV	5.26257	0.49920	1.03184	1.03962	1.02795	5.01909	1.05504	0.50546	0.31411	0.48467	0.53277	4.94333
CCB	-0.03988	-0.00256	-0.00228	-0.00286	-0.00199	-0.01889	-0.00142	-0.00167	0.00121	-0.00278	0.00174	-0.03089
1111234-1	9.66791	-0.00361	-0.00075	-0.00288	0.00032	5.69515	-0.00039	0.14043	-0.00445	-0.00100	-0.00166	-0.04738
1111235-1	20.73675	-0.00196	-0.00113	0.00083	-0.00211	4.38261	0.00412	0.15504	-0.00935	-0.00281	0.00180	-0.03655
1111260-1	H50.23666	-0.00109	0.00111	0.00293	0.00020	4.78383	-0.00101	0.41839	-0.00729	-0.00324	-0.00023	-0.03782
1111261-1	0.12034	-0.00293	0.00216	0.00211	0.00218	6.81769	0.00248	0.20849	-0.02049	-0.00311	0.00071	-0.03801
1111162-1A	9.63272	0.48980	2.01745	2.01815	2.01710	8.97435	0.52195	1.19463	0.10233	0.66690	2.05732	0.13575
IP111118-3MB	-0.02878	-0.00238	0.00104	0.00061	0.00125	-0.01977	-0.00203	-0.00191	0.00380	-0.00271	0.00209	-0.03261
IP111118-3RVS	1.01228	0.09762	0.05122	0.05296	0.05035	0.26720	0.09932	0.04810	-0.00449	0.04503	0.10632	0.46968
IP111118-3LCS	-0.02243	0.48328	2.10394	2.13809	2.08690	2.00785	0.50678	0.49512	-0.02670	0.46829	2.08418	-0.05281
1111092-9	10.42166	-0.00346	0.00137	-0.00104	0.00257	13.96639	0.00104	0.23564	-0.00730	-0.00207	0.00074	-0.04291
1111092-10	10.62018	-0.00353	-0.00011	-0.00324	0.00146	13.99226	0.00084	0.23669	-0.00429	-0.00322	-0.00122	-0.04015
CCV	5.18608	0.49535	1.03019	1.04222	1.02418	4.98585	1.04722	0.50132	0.30138	0.48044	0.53190	4.91590
CCB	-0.03671	-0.00439	-0.00033	-0.00180	0.00040	-0.02190	-0.00326	-0.00167	0.00784	-0.00271	-0.00202	-0.04257
1111106-22	H123.08553	-0.00350	0.01100	0.01084	0.01109	15.10991	0.00186	0.61838	-0.01298	-0.00324	0.00063	-0.01990
1111106-22D	H116.30389	-0.00088	0.00979	0.00863	0.01036	14.53380	0.00227	0.61426	-0.01103	-0.00363	-0.00517	-0.02436
1111106-22L 5X	24.25161	-0.00241	0.00194	0.00043	0.00270	2.98743	-0.00244	0.12389	0.00454	-0.00298	-0.00017	-0.02779
1111106-22MS	H121.57408	0.48616	2.21945	2.24801	2.20520	16.83295	0.52610	1.10836	-0.02291	0.45902	2.13744	-0.03426
1111106-22MSD	H122.22462	0.48902	2.22666	2.26239	2.20881	16.86934	0.52692	1.11001	-0.02412	0.45936	2.15196	-0.03221
1111106-35	0.00453	-0.00250	-0.00117	0.00004	-0.00178	-0.00398	-0.00428	-0.00139	0.00635	-0.00289	-0.00047	-0.03741
1111106-48	-0.04305	-0.00378	-0.00123	-0.00046	-0.00161	-0.01977	-0.00367	-0.00196	0.00456	-0.00305	-0.00487	-0.03123
1111106-61	H68.79365	-0.00234	0.01315	0.01480	0.01232	11.27905	0.00104	0.50087	-0.00605	-0.00316	-0.00002	-0.03672
1111134-1 10X	0.02674	-0.00202	0.00067	-0.00117	0.00159	0.07194	0.00166	0.17594	0.00201	-0.00299	-0.00266	-0.02772
1111134-2 10X	0.03626	-0.00418	-0.00135	-0.00312	-0.00047	0.15763	0.00145	0.17532	-0.00074	-0.00327	0.00090	-0.03957
CCV	5.23867	0.50272	1.03187	1.04656	1.02454	5.00109	1.05710	0.50605	0.30890	0.47977	0.52777	4.94028
CCB	-0.03512	-0.00238	0.00104	0.00036	0.00138	-0.02009	-0.00203	-0.00169	0.00419	-0.00297	0.00334	-0.03398
1111134-3 10X	0.01247	-0.00258	-0.00102	-0.00326	0.00010	0.06836	-0.00080	0.17671	0.00746	-0.00313	-0.00195	-0.03872
1111161-1 10X	0.07433	-0.00196	0.00085	-0.00314	0.00285	0.63354	0.00145	0.54078	0.00480	-0.00310	-0.00112	-0.04584
1111161-2 10X	1.50140	-0.00399	0.00353	0.00081	0.00489	2.96178	0.00330	1.46007	0.00672	-0.00310	-0.00148	-0.04049
1111161-3 10X	0.02516	-0.00377	-0.00092	L-0.00691	0.00207	0.05391	0.00145	0.06124	0.00884	-0.00314	-0.00420	-0.03623
1111161-4 10X	0.07116	-0.00246	-0.00132	L-0.00711	0.00157	0.62152	0.00268	0.53464	0.00362	-0.00309	0.00127	-0.03415
1111172-1	H110.61167	-0.00390	-0.00094	-0.00123	-0.00080	7.98892	0.00063	2.29511	-0.03532	-0.00353	-0.00372	-0.03981
1111172-2	H57.87422	-0.00202	0.00456	0.00641	0.00364	7.11488	0.00473	0.78542	-0.00520	-0.00295	-0.00031	-0.03606
1111172-3	H207.03757	-0.00295	0.00773	0.01183	0.00568	15.28535	0.00145	2.83293	-0.03727	-0.00337	-0.00032	-0.04738
1111172-4	H100.03508	-0.00508	0.00158	-0.00230	0.00352	10.65782	0.00043	1.84070	-0.03118	-0.00331	-0.00015	-0.03504
1111172-5	H725.18257	-0.00366	0.03474	0.03674	0.03374	10.85887	-0.00100	H13.95659	-0.04096	-0.00481	0.00714	-0.03824
CCV	5.49208	0.49650	1.04209	1.04926	1.03851	5.00723	1.04867	0.51065	0.30891	0.47834	0.53212	4.96164
CCB	0.01088	-0.00360	-0.00141	L-0.00640	0.00108	-0.02133	-0.00039	-0.00081	0.00185	-0.00307	-0.00012	-0.04325
1111172-6	H702.51897	-0.00410	0.03566	0.03547	0.03575	10.61645	-0.00039	H13.71555	-0.03000	-0.00458	0.00073	-0.04957
1111172-10	H60.49838	-0.00371	0.00037	-0.00287	0.00199	14.43294	0.00125	1.58329	-0.01992	-0.00322	-0.00535	-0.03677
1111104-1 500X	0.16476	-0.00385	-0.00460	L-0.00824	-0.00279	0.02772	-0.00223	0.27347	0.00856	-0.00313	-0.00046	-0.04979
1111232-1 5X	1.73651	-0.00275	-0.00059	-0.00104	-0.00037	1.39854	0.00125	-0.00105	0.00791	-0.00304	0.00073	-0.04737
1111235-1 5X	4.03771	-0.00157	-0.00053	-0.00249	0.00045	0.86016	-0.00510	0.03066	0.00466	-0.00307	-0.00230	-0.03813
1111238-1 5X	H264.31424	-0.00312	0.00126	0.00496	-0.00059	0.01192	0.00186	0.02320	-0.01536	-0.00347	-0.00277	-0.03603
1111238-3 5X	H195.64276	-0.00447	-0.00143	-0.00236	-0.00097	0.00927	-0.00101	0.01759	-0.01669	-0.00330	-0.00093	-0.04015
1111238-3L 25X	39.12607	-0.00360	-0.00208	-0.00047	-0.00289	-0.01868	-0.00039	0.00205	-0.00032	-0.00321	-0.00148	-0.04427
1111238-3A 5X	H195.80287	-0.00318	-0.00238	L-0.00691	-0.00012	0.00833	-0.00346	0.01757	-0.03149	-0.00297	-0.00068	-0.04324
1111106-22 5X	24.03780	-0.00399	-0.00046	-0.00431	0.00146	2.94292	-0.00141	0.12152	-0.00106	-0.00314	0.00133	-0.03088
CCV	5.27691	0.50277	1.04485	1.06118	1.03670	4.98982	1.05299	0.50882	0.31039	0.47895	0.53258	4.98607
CCB	-0.04623	-0.00262	-0.00002	L-0.00520	0.00257	-0.02329	-0.00162	-0.00191	0.00464	-0.00321	-0.00173	-0.04049

Sample Id1	S	Sb	Se	Se I	Se II	Si	Sn	Sr	Th	Ti	Tl	U
1111106-22D 5X	23.96492	-0.00399	-0.00006	-0.00021	0.00001	2.94736	-0.00203	0.12364	0.00173	-0.00299	-0.00462	-0.03260
1111106-22L 25X	4.88653	-0.00175	-0.00095	0.00080	-0.00182	0.58128	-0.00346	0.02357	0.00473	-0.00307	-0.00237	-0.03157
1111106-22MS 5X	24.11393	0.09522	0.41763	0.42309	0.41491	3.37250	0.10131	0.22546	-0.00255	0.09186	0.42490	-0.04509
1111106-22MSD 5X	24.13174	0.09713	0.41710	0.42133	0.41499	3.37800	0.10521	0.22470	-0.00432	0.09230	0.43142	-0.03033
1111134-1	0.45830	-0.00166	0.00525	0.00091	0.00741	1.02975	0.01005	1.82942	0.01168	-0.00083	-0.00154	-0.01687
1111134-2	0.67097	-0.00084	0.00058	0.00317	-0.00072	1.87095	0.00452	1.83626	0.00832	-0.00087	0.00133	-0.02772
1111134-3	0.46783	-0.00183	0.00381	0.00100	0.00520	1.05289	0.00719	1.82533	0.00942	-0.00110	0.00006	-0.01806
1111161-3	0.60590	-0.00083	0.01538	0.01191	0.01711	0.76867	0.02132	0.63898	0.00738	-0.00318	-0.00971	-0.01941
1111172-5 10X	H78.62267	-0.00451	0.00260	-0.00054	0.00417	1.06074	-0.00408	1.48641	-0.02759	-0.00347	-0.00281	-0.02995
1111238-1 25X	H54.09272	-0.00244	-0.00224	L-0.00608	-0.00033	-0.01743	-0.00059	0.00331	-0.00222	-0.00332	-0.00358	-0.03775
CCV	5.26257	0.50630	1.03697	1.05227	1.02933	4.97404	1.05340	0.50682	0.30827	0.47597	0.52954	4.97512
CCB	-0.02878	-0.00091	-0.00114	-0.00286	-0.00029	-0.02217	0.00104	-0.00179	0.00426	-0.00305	0.00068	-0.02951
1111238-3 25X	39.33932	-0.00360	0.00081	0.00225	0.00010	-0.01635	-0.00059	0.00214	0.00220	-0.00301	0.00223	-0.03947
1111238-3L 125X	7.75456	-0.00177	0.00159	0.00099	0.00189	-0.02399	-0.00531	-0.00111	0.00351	-0.00319	0.00183	-0.03740
1111238-3A 25X	40.41926	-0.00538	-0.00212	L-0.01083	0.00223	-0.02126	-0.00613	0.00228	-0.01288	-0.00289	-0.00193	-0.05731
1111172-6 10X	H83.27775	-0.00342	0.00080	-0.00288	0.00264	1.11588	-0.00223	1.53255	-0.01699	-0.00335	-0.00282	-0.04093
1111106-22A	H117.11229	0.48617	2.11038	2.17738	2.07693	16.18895	0.52097	1.07572	-0.02357	0.45194	2.12307	-0.03906
CRI	0.19649	0.12372	0.01468	0.01677	0.01364	0.09469	0.10140	0.02052	0.01602	0.01832	0.02114	0.16705
ICSA	0.02992	0.00357	-0.00244	L-0.01492	0.00379	-0.02971	0.00370	-0.00034	-0.03639	-0.00125	0.00558	0.02562
ICSAB	1.07579	0.58288	0.05028	0.04234	0.05424	0.93281	1.04815	0.99205	0.03750	0.92176	0.10334	9.88626
CCV	5.24982	0.49896	1.02636	1.04816	1.01548	4.95979	1.04805	0.50391	0.31170	0.47600	0.52958	4.93209
CCB	-0.02878	-0.00231	-0.00151	L-0.00798	0.00172	-0.02449	-0.00203	-0.00153	0.00304	-0.00296	-0.00297	-0.04498

Sample Id1	V	Zn	Zr
MIXBHIGH	4.95638	9.67145	L-0.07597
MIXAHIGH	-0.00770	-0.00869	0.00598
MIXCHIGH	L-0.01044	-0.00011	4.97028
ICV	0.24482	0.49905	0.49552
ICB	-0.00073	-0.00075	0.00089
CRI	0.10326	0.05109	0.05358
ICSA	-0.00649	-0.00207	0.00495
ICSAB	0.47656	0.92028	0.49308
CCV	0.49060	0.96358	1.00021
CCB	-0.00081	-0.00075	0.00061
F111115-1LCS	0.48746	0.47749	0.00353
1111179-1	-0.00030	0.00965	-0.00068
1111184-1	-0.00059	0.00305	-0.00030
IP111116-5MB	-0.00083	-0.00058	-0.00002
IP111116-5LCS	0.48544	0.47898	0.00187
1111037-3	-0.00038	0.00123	-0.00119
1111037-3D	-0.00044	0.00404	-0.00132
1111037-3L 5X	-0.00087	-0.00042	-0.00047
1111037-3MS	0.47673	0.45611	-0.00042
1111037-3MSD	0.47630	0.45793	-0.00039
CCV	0.48960	0.95142	0.99968
CCB	-0.00026	-0.00108	0.00068
1111040-1 10X	-0.00341	0.02665	0.00158
1111040-3 10X	-0.00171	0.10014	0.00167
1111040-4 10X	-0.00199	0.04279	0.00195
1111040-5 10X	-0.00169	0.21053	0.00189
1111040-7 10X	-0.00416	0.02766	0.00167
1111051-1 10X	-0.00127	0.06768	0.00196
1111051-2 10X	-0.00153	0.07340	0.00123
1111059-9	-0.00069	0.00094	-0.00023
1111059-10	-0.00134	0.00195	-0.00061
1111078-2	-0.00038	0.00178	-0.00176
CCV	0.48802	0.96340	1.00091
CCB	-0.00079	-0.00141	0.00063
1111078-8	-0.00061	-0.00158	-0.00077
1111078-14	-0.00083	0.00195	-0.00151
1111078-19	0.00525	0.01540	0.00382
1111078-35	-0.00083	0.09896	0.00050
IP111117-1MB	-0.00068	0.00027	-0.00024
IP111117-1RVS	0.04948	0.05070	0.04872
ZZZ	0.48685	0.48212	0.98519
1110384-1	0.08680	H62.89343	0.00719
1110384-2	0.10145	H64.42832	0.00546
1110384-3	0.06745	3.13635	0.01483
1110384-4	0.49665	0.99138	1.01155
1110384-5	-0.00083	-0.00007	0.00058
1110384-6	0.05274	1.60748	0.01185
1110384-7	1.71814	4.67401	0.01670
1110384-8	2.22255	4.68382	0.00365
1111160-2	0.21158	1.32851	0.04521

Sample Id1	V	Zn	Zr
1111160-2D	0.20838	0.75253	0.03168
1111160-2L 5X	0.04251	0.25415	0.00890
1111160-2MS	0.71709	1.07959	0.69069
1111160-2MSD	0.73796	1.02292	0.73399
1111160-3	0.18215	0.57027	0.05099
1111160-4	0.16097	0.55625	0.05054
CCV	0.48974	0.96323	0.99485
CCB	-0.00062	0.00010	0.00072
1111160-5	0.17374	0.60237	0.04721
1111160-6	0.25671	0.17434	0.03893
1111160-7	0.32527	0.32290	0.05379
1111160-8	0.29682	0.36251	0.05190
1111160-9	0.55753	0.10014	0.05911
1111160-10	0.57518	0.45748	0.05979
1111160-11	0.54674	0.15465	0.05860
1111160-12	0.87325	0.12537	0.08023
1111160-13	0.21243	0.15280	0.04115
1111160-14	0.33473	7.56369	0.03186
CCV	0.48317	0.93882	0.99107
CCB	-0.00079	0.00027	0.00036
1111160-15	0.21029	0.62637	0.04391
1111040-1 100X	-0.00130	0.00279	-0.00009
1111040-3 100X	-0.00060	0.01170	0.00023
1111040-4 100X	-0.00104	0.00615	-0.00012
1111040-5 100X	-0.00080	0.02766	0.00010
1111040-7 100X	-0.00119	0.00565	-0.00025
1111051-1 100X	-0.00099	0.00850	-0.00015
1111051-2 100X	-0.00117	0.00834	-0.00037
CCV	0.49558	0.96509	1.01472
CCB	-0.00028	0.00027	0.00042
IP111117-1LCS	0.48689	0.46018	1.00178
1110384-1 10X	0.00773	5.85340	0.00160
1110384-2 10X	0.00851	5.74978	0.00047
1110384-5 10X	0.16497	0.44415	0.00130
1110384-6 10X	0.21397	0.43166	0.00016
1111160-3 5X	0.03607	0.11847	0.01030
1111160-4 5X	0.03290	0.11830	0.01045
1111160-5 5X	0.03435	0.12032	0.00996
1111040-1 1000X	-0.00133	0.00027	-0.00066
1111040-3 1000X	-0.00102	0.00128	-0.00053
CCV	0.48723	0.94713	0.99990
CCB	-0.00093	-0.00108	-0.00021
1111040-4 1000X	-0.00095	-0.00040	-0.00038
1111040-5 1000X	-0.00130	0.00346	-0.00066
1111040-7 1000X	-0.00096	0.00027	-0.00074
1111051-1 1000X	-0.00053	0.00212	-0.00067
1111051-2 1000X	-0.00127	0.00128	-0.00086
1111160-2A	0.67023	0.86681	1.90498
IP111117-2MB	-0.00092	0.00296	0.00031
IP111117-2RVS	0.04762	0.04666	0.04856

Sample Id1	V	Zn	Zr
IP111117-2LCS	0.47578	0.45242	0.00425
1111162-1	0.15505	0.37988	0.04129
CCV	0.48243	0.94814	0.98237
CCB	-0.00089	-0.00074	-0.00006
1111162-1D	0.15785	0.39051	0.04303
1111162-1L 5X	0.03135	0.08113	0.00759
1111162-1MS	0.64987	0.81566	0.06012
1111162-1MSD	0.65390	0.82819	0.05982
1111162-2	0.19689	0.25028	0.03012
1111162-3	0.19645	0.26679	0.03039
1111162-4	0.43825	0.15684	0.04383
1111162-5	0.40660	0.14253	0.04131
1111162-6	0.52048	0.19807	0.05575
1111162-7	0.66466	0.16087	0.03177
CCV	0.48138	0.93441	0.98411
CCB	-0.00025	-0.00141	0.00020
1111162-8	0.10716	0.23343	0.03694
1111162-9	0.13642	0.30672	0.02105
1111162-10	0.20545	0.17939	0.02067
1111162-11	0.09333	0.20700	0.01767
1111162-12	0.12263	0.24522	0.02769
1111162-13	0.18763	0.42525	0.03514
1111162-14	0.18260	0.44533	0.02901
1111162-15	0.26151	0.26021	0.03343
IP111118-2MB	-0.00056	0.00027	-0.00078
IP111118-2RVS	0.04753	0.04868	0.04772
CCV	0.48170	0.92933	0.98416
CCB	-0.00056	-0.00024	0.00032
IP111118-2LCS	0.48334	0.47065	0.00270
1111071-1	-0.00028	0.01792	-0.00045
1111071-1D	-0.00063	0.01775	-0.00067
1111071-1L 5X	-0.00075	0.00262	-0.00044
1111071-1MS	0.48488	0.48719	0.00044
1111071-1MSD	0.49069	0.49141	0.00087
1111104-1 10X	-0.00073	0.00161	-0.00064
1111170-1	-0.00063	0.02077	-0.00143
1111171-1	0.00000	0.01674	-0.00073
1111173-1	-0.00038	0.00128	-0.00228
CCV	0.48252	0.94357	0.98660
CCB	-0.00114	0.00010	0.00041
1111174-1	-0.00005	0.00615	0.00022
1111180-1	-0.00063	0.01993	0.00030
1111181-1	-0.00093	0.00766	-0.00104
1111182-1	-0.00050	0.00447	-0.00077
1111183-1	0.00069	0.11612	0.00014
1111207-1	-0.00007	0.00750	-0.00080
1111209-1	-0.00042	0.02346	-0.00021
1111210-1	-0.00046	0.09055	0.00060
1111232-1	-0.00085	0.00951	-0.00182
1111233-1	-0.00072	0.02581	-0.00019

Sample Id1	V	Zn	Zr
CCV	0.48487	0.95848	0.98594
CCB	-0.00069	-0.00024	0.00046
1111234-1	0.00046	-0.00040	-0.00077
1111235-1	-0.00070	0.11881	0.00049
1111260-1	-0.00098	0.02750	-0.00061
1111261-1	-0.00065	0.01086	-0.00005
1111162-1A	0.63048	0.82989	0.04008
IP111118-3MB	-0.00093	-0.00074	-0.00084
IP111118-3RVS	0.04779	0.04767	0.04774
IP111118-3LCS	0.47907	0.47065	0.00243
1111092-9	0.00275	0.00834	-0.00295
1111092-10	0.00256	0.00733	-0.00321
CCV	0.47992	0.95475	0.97986
CCB	-0.00116	0.00010	-0.00037
1111106-22	0.00440	0.00077	-0.00062
1111106-22D	0.00389	0.00262	-0.00161
1111106-22L 5X	0.00042	0.00027	-0.00094
1111106-22MS	0.47662	0.45343	-0.00156
1111106-22MSD	0.47775	0.45816	-0.00191
1111106-35	-0.00061	0.00212	-0.00099
1111106-48	-0.00065	0.00077	-0.00067
1111106-61	0.00052	0.00027	-0.00243
1111134-1 10X	-0.00081	0.01035	-0.00029
1111134-2 10X	-0.00105	0.00279	-0.00040
CCV	0.48274	0.94560	0.98518
CCB	-0.00069	-0.00057	0.00009
1111134-3 10X	-0.00120	0.01035	-0.00089
1111161-1 10X	-0.00136	0.00565	-0.00082
1111161-2 10X	-0.00042	0.00044	-0.00105
1111161-3 10X	-0.00078	0.00666	-0.00078
1111161-4 10X	-0.00133	0.00430	-0.00072
1111172-1	-0.00071	0.05271	0.00085
1111172-2	0.00793	0.01203	-0.00141
1111172-3	0.00065	0.07693	-0.00120
1111172-4	-0.00006	0.04178	-0.00035
1111172-5	0.00057	0.00783	0.00012
CCV	0.48179	0.94052	0.98512
CCB	-0.00075	-0.00108	0.00012
1111172-6	0.00061	0.00077	0.00074
1111172-10	0.00133	-0.00108	-0.00174
1111104-1 500X	-0.00142	-0.00091	-0.00156
1111232-1 5X	-0.00093	0.00178	-0.00130
1111235-1 5X	-0.00133	0.02481	-0.00094
1111238-1 5X	-0.00085	0.00061	0.00054
1111238-3 5X	-0.00102	0.00044	0.00036
1111238-3L 25X	-0.00112	-0.00108	-0.00086
1111238-3A 5X	-0.00077	0.00077	0.00124
1111106-22 5X	0.00013	-0.00007	-0.00081
CCV	0.48318	0.93594	0.99066
CCB	-0.00130	-0.00057	-0.00042

Sample Id1	V	Zn	Zr
1111106-22D 5X	0.00005	0.00094	0.00055
1111106-22L 25X	-0.00044	-0.00124	-0.00050
1111106-22MS 5X	0.09822	0.09324	0.00013
1111106-22MSD 5X	0.09970	0.09576	-0.00016
1111134-1	-0.00306	1.31422	0.00673
1111134-2	-0.00270	1.03633	0.00800
1111134-3	-0.00344	1.17892	0.00720
1111161-3	-0.00302	0.07659	-0.00033
1111172-5 10X	-0.00046	0.00044	0.00112
1111238-1 25X	-0.00104	-0.00040	-0.00071
CCV	0.48068	0.92662	0.98567
CCB	-0.00022	-0.00124	0.00017
1111238-3 25X	-0.00106	-0.00024	-0.00030
1111238-3L 125X	-0.00110	-0.00108	-0.00054
1111238-3A 25X	-0.00151	0.00044	0.00002
1111172-6 10X	-0.00113	-0.00024	0.00044
1111106-22A	0.47434	0.45343	0.00008
CRI	0.10154	0.04767	0.04976
ICSA	-0.00525	-0.00259	0.00469
ICSAB	0.46642	0.88832	0.48186
CCV	0.48002	0.93407	0.98324
CCB	-0.00099	-0.00024	-0.00010

Method : Paragon File : 111118A
 SampleId1 : BLANK SampleId2 :
 Analysis commenced : 11/18/2011 13:23:04
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:54:20
 [STD]

Position : TUBE1

Raw intensities

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	Reading								
#1	0.073	0.174	0.171	0.051	0.014	0.474	0.105	0.031	0.081
#2	0.074	0.173	0.172	0.052	0.014	0.471	0.106	0.032	0.080
Mean	0.074	0.173	0.172	0.052	0.014	0.472	0.105	0.031	0.080
%RSD	0.769	0.326	0.453	2.471	1.032	0.419	0.673	0.225	0.970

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	Reading								
#1	0.076	0.131	0.048	0.033	0.497	0.076	0.073	0.009	0.060
#2	0.076	0.131	0.048	0.033	0.503	0.077	0.075	0.009	0.060
Mean	0.076	0.131	0.048	0.033	0.500	0.077	0.074	0.009	0.060
%RSD	0.279	0.270	0.295	0.430	0.834	0.738	1.338	0.000	0.473

	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	Reading								
#1	0.101	0.151	0.077	1.639	0.474	0.010	0.143	0.339	0.221
#2	0.101	0.155	0.079	1.637	0.481	0.009	0.145	0.341	0.223
Mean	0.101	0.153	0.078	1.638	0.478	0.009	0.144	0.340	0.222
%RSD	0.561	1.573	1.179	0.078	1.051	2.245	0.837	0.395	0.734

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	Reading								
#1	0.218	0.065	0.022	0.410	0.142	0.208	0.102	0.090	0.017
#2	0.218	0.066	0.022	0.413	0.142	0.206	0.102	0.091	0.017
Mean	0.218	0.065	0.022	0.411	0.142	0.207	0.102	0.091	0.017
%RSD	0.227	1.192	0.953	0.464	0.100	0.753	0.208	1.091	1.237

	Zr	Pb	Se
	Reading	Reading	Reading
#1	0.173		
#2	0.173		
Mean	0.173	0.000	0.000
%RSD	0.082	0.000	0.000

Method : Paragon File : 111118A
 SampleId1 : RL SampleId2 :
 Analysis commenced : 11/18/2011 13:25:02
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:54:20
 [STD]

Position : TUBE2

Raw intensities

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	Reading								
#1	0.080	0.208	0.184	0.150	0.023	0.566	0.111	0.136	0.089
#2	0.080	0.207	0.180	0.151	0.023	0.563	0.113	0.137	0.092
Mean	0.080	0.207	0.182	0.150	0.023	0.565	0.112	0.137	0.091
%RSD	0.177	0.273	1.551	0.141	0.000	0.426	1.578	0.155	1.950

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	Reading								
#1	0.081	0.144	0.052	0.091	0.951	0.498	0.142	0.012	0.077
#2	0.081	0.145	0.052	0.090	0.951	0.496	0.143	0.012	0.077
Mean	0.081	0.145	0.052	0.091	0.951	0.497	0.142	0.012	0.077
%RSD	0.262	0.489	0.406	0.545	0.059	0.228	0.248	0.597	0.000

	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	Reading								
#1	1.601	0.182	0.106	1.672	0.501	0.012	0.155	0.346	0.236
#2	1.592	0.182	0.109	1.684	0.499	0.012	0.156	0.346	0.232
Mean	1.596	0.182	0.107	1.678	0.500	0.012	0.155	0.346	0.234
%RSD	0.434	0.039	2.567	0.472	0.325	0.000	0.501	0.102	1.087

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	Reading								
#1	0.283	0.069	0.189	0.439	0.289	0.217	0.125	0.100	0.020
#2	0.281	0.069	0.188	0.440	0.290	0.215	0.126	0.100	0.020
Mean	0.282	0.069	0.189	0.439	0.289	0.216	0.125	0.100	0.020
%RSD	0.601	0.103	0.225	0.177	0.269	0.720	1.015	0.354	0.354

	Zr	Pb	Se
	Reading	Reading	Reading
#1	0.229		
#2	0.231		
Mean	0.230	0.000	0.000
%RSD	0.677	0.000	0.000

Method : Paragon

File : 111118A

Printed : 11/21/2011 12:54:20

SampleId1 : RL2

SampleId2 :

[STD]

Analysis commenced : 11/18/2011 13:26:56

Dilution ratio : 1.00000 to 1.00000 Tray :

Position : TUBE3

Raw intensities

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	Reading								
#1	0.089	0.267	0.194	0.327	0.037	0.730	0.120	0.308	0.109
#2	0.091	0.266	0.194	0.328	0.037	0.724	0.120	0.309	0.107
Mean	0.090	0.266	0.194	0.328	0.037	0.727	0.120	0.308	0.108
%RSD	0.944	0.106	0.000	0.259	0.000	0.496	0.059	0.321	0.983

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
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	Reading								
#1	0.088	0.162	0.059	0.192	1.505	1.207	0.264	0.018	0.109
#2	0.089	0.164	0.058	0.192	1.498	1.196	0.264	0.018	0.109
Mean	0.089	0.163	0.058	0.192	1.502	1.201	0.264	0.018	0.109
%RSD	0.240	0.869	0.847	0.147	0.334	0.677	0.054	0.000	0.584

	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	Reading								
#1	4.001	0.224	0.161	1.707	0.516	0.016	0.173	0.357	0.247
#2	3.963	0.225	0.159	1.712	0.517	0.016	0.174	0.357	0.249
Mean	3.982	0.225	0.160	1.709	0.516	0.016	0.174	0.357	0.248
%RSD	0.678	0.441	0.930	0.186	0.123	0.449	0.448	0.040	0.542

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	Reading								
#1	0.385	0.075	0.437	0.474	0.539	0.228	0.163	0.112	0.024
#2	0.385	0.075	0.434	0.477	0.541	0.229	0.163	0.113	0.024
Mean	0.385	0.075	0.435	0.475	0.540	0.228	0.163	0.113	0.024
%RSD	0.037	0.000	0.488	0.491	0.249	0.341	0.000	0.753	0.295

	Zr	Pb	Se
	Reading	Reading	Reading
#1	0.329		
#2	0.330		
Mean	0.329	0.000	0.000
%RSD	0.279	0.000	0.000

Method : Paragon

File : 111118A

Printed : 11/21/2011 12:54:20

SampleId1 : B3

SampleId2 :

[STD]

Analysis commenced : 11/18/2011 13:29:46

Dilution ratio : 1.00000 to 1.00000 Tray :

Position : TUBE4

Raw intensities

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	Reading								
#1	0.117	0.175	0.225	0.202	0.284	1.080	0.108	0.031	0.395
#2	0.116	0.176	0.227	0.201	0.286	1.083	0.108	0.032	0.394
Mean	0.116	0.176	0.226	0.201	0.285	1.082	0.108	0.032	0.395
%RSD	0.850	0.564	0.688	0.140	0.472	0.196	0.262	0.895	0.107

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	Reading								
#1	0.151	0.464	0.166	0.032	0.509	0.078	0.076	0.120	0.192
#2	0.152	0.462	0.168	0.033	0.502	0.077	0.075	0.120	0.193
Mean	0.151	0.463	0.167	0.033	0.506	0.078	0.075	0.120	0.193
%RSD	0.233	0.275	0.551	1.297	1.007	0.547	0.848	0.118	0.404

	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	Reading								

#1	0.114	0.517	0.308	2.131	0.741	0.010	0.166	0.380	0.289
#2	0.187	0.516	0.305	2.126	0.734	0.011	0.164	0.383	0.288
Mean	0.150	0.516	0.307	2.129	0.738	0.010	0.165	0.381	0.288
%RSD	34.227	0.137	0.554	0.173	0.690	12.856	0.600	0.482	0.123

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	Reading								
#1	0.628	0.091	1.017	0.442	1.214	0.261	0.105	0.220	0.051
#2	0.630	0.091	1.023	0.439	1.219	0.267	0.103	0.219	0.052
Mean	0.629	0.091	1.020	0.441	1.217	0.264	0.104	0.219	0.051
%RSD	0.169	0.078	0.388	0.465	0.308	1.659	1.906	0.354	0.550

	Zr	Pb	Se
	Reading	Reading	Reading
#1	0.192		
#2	0.189		
Mean	0.190	0.000	0.000
%RSD	1.264	0.000	0.000

Method : Paragon

File : 111118A

Printed : 11/21/2011 12:54:21

SampleId1 : B2

SampleId2 :

[STD]

Analysis commenced : 11/18/2011 13:31:47

Dilution ratio : 1.00000 to 1.00000 Tray :

Position : TUBE5

Raw intensities

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	Reading								
#1	0.493	0.184	0.682	1.544	2.680	6.446	0.113	0.033	3.161
#2	0.491	0.183	0.686	1.537	2.660	6.425	0.113	0.034	3.152
Mean	0.492	0.183	0.684	1.540	2.670	6.435	0.113	0.033	3.157
%RSD	0.345	0.077	0.413	0.289	0.511	0.235	0.188	2.353	0.193

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	Reading								
#1	0.820	3.370	1.223	0.035	0.501	0.078	0.076	1.107	1.372
#2	0.817	3.360	1.213	0.036	0.508	0.078	0.077	1.104	1.367
Mean	0.818	3.365	1.218	0.035	0.504	0.078	0.076	1.105	1.370
%RSD	0.199	0.200	0.621	1.805	0.897	0.726	0.650	0.160	0.258

	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	Reading								
#1	0.125	3.705	2.292	6.344	2.973	0.010	0.343	0.741	0.838
#2	0.211	3.698	2.273	6.325	2.967	0.011	0.343	0.752	0.841
Mean	0.168	3.702	2.282	6.334	2.970	0.011	0.343	0.747	0.839
%RSD	36.187	0.132	0.561	0.209	0.136	10.054	0.103	1.042	0.303

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	Reading	Reading	Reading	Reading	Reading	Reading	Reading	Reading	Reading
#1	4.252	0.317	9.860	0.641	10.724	0.759	0.104	1.346	0.353

#2	4.245	0.316	9.797	0.643	10.672	0.758	0.106	1.342	0.354
Mean	4.249	0.316	9.828	0.642	10.698	0.758	0.105	1.344	0.353
%RSD	0.112	0.224	0.452	0.242	0.343	0.093	0.875	0.195	0.080

	Zr	Pb	Se
	Reading	Reading	Reading
#1	0.249		
#2	0.244		
Mean	0.246	0.000	0.000
%RSD	1.321	0.000	0.000

Method : Paragon File : 111118A Printed : 11/21/2011 12:54:21
SampleId1 : B1 SampleId2 : [STD]
Analysis commenced : 11/18/2011 13:33:40
Dilution ratio : 1.00000 to 1.00000 Tray : Position : TUBE6

Raw intensities

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	Reading	Reading	Reading	Reading	Reading	Reading	Reading	Reading	Reading
#1	4.198	0.259	5.124	14.654	25.409	58.696	0.164	0.046	29.303
#2	4.163	0.258	5.100	14.541	25.133	58.381	0.162	0.046	29.188
Mean	4.180	0.259	5.112	14.598	25.271	58.539	0.163	0.046	29.245
%RSD	0.585	0.219	0.340	0.545	0.773	0.381	0.909	0.305	0.279

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	Reading	Reading	Reading	Reading	Reading	Reading	Reading	Reading	Reading
#1	7.355	31.756	11.701	0.058	0.518	0.087	0.088	10.373	12.806
#2	7.303	31.595	11.558	0.059	0.523	0.087	0.089	10.314	12.740
Mean	7.329	31.676	11.629	0.058	0.521	0.087	0.088	10.343	12.773
%RSD	0.499	0.359	0.874	0.726	0.801	0.406	0.562	0.407	0.361

	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	Reading	Reading	Reading	Reading	Reading	Reading	Reading	Reading	Reading
#1	0.216	34.865	19.950	47.648	24.828	0.012	2.075	4.322	6.220
#2	0.265	34.582	19.798	47.292	24.757	0.013	2.063	4.307	6.205
Mean	0.241	34.723	19.874	47.470	24.792	0.013	2.069	4.315	6.212
%RSD	14.316	0.577	0.541	0.530	0.204	6.149	0.414	0.244	0.175

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	Reading	Reading	Reading	Reading	Reading	Reading	Reading	Reading	Reading
#1	39.130	2.525	90.129	2.638	104.281	5.675	0.123	12.417	3.245
#2	38.889	2.511	89.254	2.624	103.493	5.623	0.123	12.333	3.240
Mean	39.009	2.518	89.692	2.631	103.887	5.649	0.123	12.375	3.242
%RSD	0.438	0.396	0.689	0.376	0.536	0.643	0.058	0.479	0.113

	Zr	Pb	Se
	Reading	Reading	Reading
#1	0.737		
#2	0.732		

Mean 0.735 0.000 0.000UNDGREEN
 %RSD 0.549 0.000 0.000

Method : Paragon File : 111118A Printed : 11/21/2011 12:54:21
 SampleId1 : A5 SampleId2 : [STD]
 Analysis commenced : 11/18/2011 13:35:33
 Dilution ratio : 1.00000 to 1.00000 Tray : Position : TUBE7

Raw intensities

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	Reading								
#1	0.076	1.317	0.177	0.069	0.018	0.481	0.107	1.820	0.083
#2	0.076	1.311	0.177	0.068	0.018	0.479	0.109	1.805	0.083
Mean	0.076	1.314	0.177	0.068	0.018	0.480	0.108	1.813	0.083
%RSD	0.279	0.350	0.120	1.447	0.000	0.383	1.046	0.573	0.256

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	Reading								
#1	0.078	0.138	0.050	1.720	1.783	3.017	1.267	0.010	0.069
#2	0.078	0.139	0.049	1.709	1.774	3.005	1.260	0.010	0.066
Mean	0.078	0.139	0.049	1.715	1.779	3.011	1.263	0.010	0.067
%RSD	0.000	0.102	0.715	0.466	0.358	0.296	0.375	0.733	2.522

	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	Reading								
#1	3.227	0.160	0.082	1.677	0.497	0.010	0.149	0.349	0.229
#2	3.214	0.158	0.079	1.675	0.497	0.009	0.149	0.347	0.230
Mean	3.221	0.159	0.081	1.676	0.497	0.009	0.149	0.348	0.230
%RSD	0.290	1.024	2.625	0.089	0.014	2.245	0.238	0.285	0.339

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	Reading								
#1	0.244	0.067	0.059	0.474	0.173	0.218	0.110	0.097	0.018
#2	0.239	0.067	0.059	0.472	0.172	0.211	0.111	0.096	0.018
Mean	0.242	0.067	0.059	0.473	0.172	0.215	0.111	0.096	0.018
%RSD	1.433	0.000	0.120	0.404	0.738	2.308	0.447	0.367	0.390

	Zr	Pb	Se
	Reading	Reading	Reading
#1	0.177		
#2	0.177		
Mean	0.177	0.000	0.000
%RSD	0.040	0.000	0.000

Method : Paragon File : 111118A Printed : 11/21/2011 12:54:21
 SampleId1 : A4 SampleId2 : [STD]
 Analysis commenced : 11/18/2011 13:37:25
 Dilution ratio : 1.00000 to 1.00000 Tray : Position : TUBE8

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	Reading	Reading	Reading	Reading	Reading	Reading	Reading	Reading	Reading
#1	0.081	11.023	0.196	0.067	0.015	0.481	0.111	17.330	0.087
#2	0.081	11.028	0.198	0.068	0.016	0.478	0.111	17.340	0.086
Mean	0.081	11.025	0.197	0.067	0.015	0.480	0.111	17.335	0.086
%RSD	0.262	0.033	0.898	0.734	0.458	0.501	0.128	0.040	0.409

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	Reading	Reading	Reading	Reading	Reading	Reading	Reading	Reading	Reading
#1	0.081	0.159	0.051	15.985	9.698	27.543	11.596	0.011	0.074
#2	0.081	0.160	0.051	16.022	9.694	27.532	11.618	0.011	0.075
Mean	0.081	0.159	0.051	16.004	9.696	27.538	11.607	0.011	0.075
%RSD	0.175	0.489	0.000	0.161	0.034	0.029	0.132	0.000	1.519

	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	Reading	Reading	Reading	Reading	Reading	Reading	Reading	Reading	Reading
#1	25.442	0.162	0.087	1.923	0.566	0.010	0.187	0.402	0.269
#2	25.415	0.163	0.084	1.927	0.573	0.010	0.189	0.401	0.271
Mean	25.428	0.163	0.086	1.925	0.570	0.010	0.188	0.401	0.270
%RSD	0.076	0.522	2.562	0.143	0.832	2.154	0.941	0.053	0.603

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	Reading								
#1	0.256	0.074	0.039	0.760	0.183	0.239	0.145	0.113	0.022
#2	0.256	0.075	0.039	0.759	0.183	0.239	0.144	0.113	0.022
Mean	0.256	0.074	0.039	0.759	0.183	0.239	0.144	0.113	0.022
%RSD	0.000	0.953	0.180	0.121	0.116	0.089	0.441	0.125	0.000

	Zr	Pb	Se
	Reading	Reading	Reading
#1	0.196		
#2	0.195		
Mean	0.196	0.000	0.000
%RSD	0.578	0.000	0.000

Method : Paragon File : 111118A
 SampleId1 : A3 SampleId2 :
 Analysis commenced : 11/18/2011 13:39:18
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:54:21
 [STD]

Position : TUBE9

Raw intensities

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	Reading	Reading	Reading	Reading	Reading	Reading	Reading	Reading	Reading
#1	0.082	21.719	0.222	0.072	0.018	0.496	0.112	33.289	0.092
#2	0.083	21.659	0.222	0.071	0.019	0.492	0.113	33.349	0.094
Mean	0.082	21.689	0.222	0.072	0.019	0.494	0.112	33.319	0.093
%RSD	0.171	0.195	0.032	0.788	0.764	0.587	0.819	0.128	1.524

ted: 11/21/2011 12:54:23 User: MIKE LUNDGREEN

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	Reading	Reading	Reading	Reading	Reading	Reading	Reading	Reading	Reading
#1	0.084	0.172	0.052	30.348	19.734	59.820	22.686	0.014	0.089
#2	0.084	0.173	0.053	30.350	19.665	59.548	22.674	0.014	0.089
Mean	0.084	0.172	0.053	30.349	19.699	59.684	22.680	0.014	0.089
%RSD	0.338	0.451	0.538	0.006	0.248	0.322	0.040	1.032	0.319

	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	Reading	Reading	Reading	Reading	Reading	Reading	Reading	Reading	Reading
#1	50.713	0.169	0.094	2.155	0.646	0.011	0.226	0.461	0.307
#2	50.565	0.173	0.095	2.180	0.643	0.011	0.224	0.458	0.314
Mean	50.639	0.171	0.094	2.167	0.644	0.011	0.225	0.459	0.311
%RSD	0.206	1.532	0.824	0.845	0.318	0.652	0.471	0.539	1.502

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	Reading								
#1	0.272	0.083	0.061	0.907	0.201	0.275	0.163	0.124	0.026
#2	0.273	0.083	0.062	0.909	0.204	0.274	0.164	0.125	0.027
Mean	0.273	0.083	0.062	0.908	0.202	0.275	0.164	0.125	0.026
%RSD	0.208	0.597	0.690	0.156	1.049	0.283	0.431	0.909	1.075

	Zr	Pb	Se
	Reading	Reading	Reading
#1	0.200		
#2	0.203		
Mean	0.201	0.000	0.000
%RSD	1.194	0.000	0.000

Method : Paragon File : 111118A
 SampleId1 : A2 SampleId2 :
 Analysis commenced : 11/18/2011 13:41:11
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:54:21
 [STD]

Position : TUBE10

Raw intensities

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	Reading	Reading	Reading	Reading	Reading	Reading	Reading	Reading	Reading
#1	0.084	41.997	0.262	0.080	0.018	0.508	0.116	62.773	0.098
#2	0.084	42.049	0.258	0.081	0.018	0.506	0.116	62.863	0.098
Mean	0.084	42.023	0.260	0.081	0.018	0.507	0.116	62.818	0.098
%RSD	0.168	0.087	1.089	0.701	1.169	0.362	0.427	0.101	0.217

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	Reading	Reading	Reading	Reading	Reading	Reading	Reading	Reading	Reading
#1	0.088	0.186	0.053	55.691	38.675	126.418	43.807	0.017	0.112
#2	0.089	0.184	0.054	55.712	38.689	126.439	43.907	0.016	0.113
Mean	0.089	0.185	0.053	55.701	38.682	126.429	43.857	0.016	0.113
%RSD	0.638	0.917	0.265	0.026	0.027	0.012	0.162	0.430	0.314

	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	Reading	Reading	Reading	Reading	Reading	Reading	Reading	Reading	Reading
#1	94.327	0.178	0.102	2.630	0.794	0.012	0.300	0.574	0.393
#2	94.348	0.177	0.099	2.642	0.787	0.012	0.305	0.570	0.392
Mean	94.338	0.177	0.101	2.636	0.791	0.012	0.303	0.572	0.393
%RSD	0.015	0.399	2.245	0.309	0.635	0.000	1.168	0.532	0.054

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	Reading								
#1	0.292	0.098	0.082	1.084	0.215	0.335	0.198	0.141	0.034
#2	0.292	0.099	0.081	1.086	0.214	0.331	0.199	0.140	0.034
Mean	0.292	0.098	0.081	1.085	0.214	0.333	0.199	0.140	0.034
%RSD	0.073	0.575	0.698	0.117	0.231	0.765	0.285	0.555	0.619

	Zr	Pb	Se
	Reading	Reading	Reading
#1	0.212		
#2	0.212		
Mean	0.212	0.000	0.000
%RSD	0.133	0.000	0.000

Method : Paragon

File : 111118A

Printed : 11/21/2011 12:54:22

SampleId1 : Al

SampleId2 :

[STD]

Analysis commenced : 11/18/2011 13:43:05

Dilution ratio : 1.00000 to 1.00000 Tray :

Position : TUBE11

Raw intensities

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	Reading	Reading	Reading	Reading	Reading	Reading	Reading	Reading	Reading
#1	0.087	96.508	0.390	0.108	0.019	0.547	0.126	136.188	0.118
#2	0.087	96.198	0.390	0.108	0.019	0.545	0.128	136.338	0.118
Mean	0.087	96.353	0.390	0.108	0.019	0.546	0.127	136.263	0.118
%RSD	0.000	0.228	0.000	0.458	0.000	0.259	0.669	0.078	0.239

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	Reading	Reading	Reading	Reading	Reading	Reading	Reading	Reading	Reading
#1	0.102	0.216	0.056	111.611	88.121	327.213	100.834	0.025	0.187
#2	0.103	0.217	0.056	111.750	87.771	325.080	100.795	0.025	0.187
Mean	0.102	0.217	0.056	111.680	87.946	326.147	100.814	0.025	0.187
%RSD	0.207	0.163	0.127	0.088	0.282	0.462	0.027	0.000	0.076

	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	Reading	Reading	Reading	Reading	Reading	Reading	Reading	Reading	Reading
#1	187.670	0.196	0.128	3.987	1.202	0.014	0.533	0.902	0.620
#2	187.072	0.199	0.129	3.982	1.205	0.015	0.530	0.905	0.632
Mean	187.371	0.197	0.128	3.984	1.203	0.015	0.532	0.904	0.626
%RSD	0.226	0.968	0.551	0.096	0.200	2.430	0.426	0.235	1.423

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
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	Reading								
#1	0.332	0.144	0.139	1.416	0.250	0.512	0.290	0.186	0.059
#2	0.333	0.144	0.139	1.416	0.251	0.509	0.293	0.187	0.059
Mean	0.332	0.144	0.139	1.416	0.250	0.511	0.291	0.187	0.059
%RSD	0.149	0.098	0.356	0.020	0.254	0.346	0.631	0.227	0.960

	Zr Reading	Pb Reading	Se Reading
#1	0.238		
#2	0.239		
Mean	0.239	0.000	0.000
%RSD	0.207	0.000	0.000

Method : Paragon

File : 111118A

Printed : 11/21/2011 12:54:22

SampleId1 : C3

SampleId2 :

[STD]

Analysis commenced : 11/18/2011 13:44:59

Dilution ratio : 1.00000 to 1.00000 Tray :

Position : TUBE12

Raw intensities

	Ag Reading	Al Reading	As Reading	B Reading	Ba Reading	Be Reading	Bi Reading	Ca Reading	Cd Reading
#1	0.075	0.181	0.170	0.054	0.014	0.479	0.141	0.040	0.081
#2	0.077	0.180	0.171	0.053	0.014	0.474	0.140	0.041	0.080
Mean	0.076	0.181	0.171	0.054	0.014	0.477	0.140	0.040	0.080
%RSD	1.769	0.627	0.249	1.586	1.032	0.816	0.706	0.702	0.352

	Co Reading	Cr Reading	Cu Reading	Fe Reading	K Reading	Li Reading	Mg Reading	Mn Reading	Mo Reading
#1	0.076	0.136	0.049	0.044	0.505	0.088	0.084	0.009	0.060
#2	0.077	0.138	0.049	0.044	0.511	0.089	0.085	0.009	0.059
Mean	0.076	0.137	0.049	0.044	0.508	0.088	0.084	0.009	0.059
%RSD	0.741	1.083	0.580	0.161	0.918	0.800	0.503	0.000	1.196

	Na Reading	Ni Reading	P Reading	Pb I Reading	Pb II Reading	S Reading	Sb Reading	Se I Reading	Se II Reading
#1	0.112	0.153	0.079	1.636	0.481	0.025	0.144	0.342	0.223
#2	0.112	0.155	0.080	1.644	0.482	0.025	0.144	0.343	0.225
Mean	0.112	0.154	0.079	1.640	0.481	0.025	0.144	0.342	0.224
%RSD	0.253	0.597	1.248	0.345	0.147	0.280	0.295	0.227	0.695

	Si Reading	Sn Reading	Sr Reading	Th Reading	Ti Reading	Tl Reading	U Reading	V Reading	Zn Reading
#1	0.221	0.065	0.022	0.465	0.146	0.209	0.180	0.093	0.017
#2	0.223	0.066	0.023	0.468	0.148	0.207	0.182	0.093	0.017
Mean	0.222	0.065	0.022	0.467	0.147	0.208	0.181	0.093	0.017
%RSD	0.542	0.977	0.631	0.546	0.722	0.613	0.586	0.000	0.827

	Zr Reading	Pb Reading	Se Reading
#1	0.238		
#2	0.239		
Mean	0.239	0.000	0.000
%RSD	0.207	0.000	0.000

#1 0.510
 #2 0.518
Mean 0.514
 %RSD 1.059

UNDCREEN

0.000 0.000
 0.000 0.000

Method : Paragon File : 111118A Printed : 11/21/2011 12:54:22
 SampleId1 : C2 SampleId2 : [STD]
 Analysis commenced : 11/18/2011 13:46:52
 Dilution ratio : 1.00000 to 1.00000 Tray : Position : TUBE13

Raw intensities

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	Reading								
#1	0.097	0.192	0.173	0.057	0.014	0.512	0.441	0.041	0.081
#2	0.097	0.193	0.172	0.057	0.014	0.507	0.440	0.046	0.080
Mean	0.097	0.192	0.173	0.057	0.014	0.509	0.440	0.043	0.081
%RSD	0.219	0.662	0.328	0.992	1.521	0.694	0.144	8.818	0.351

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	Reading								
#1	0.078	0.181	0.055	0.039	0.497	0.079	0.114	0.010	0.059
#2	0.079	0.182	0.056	0.044	0.506	0.085	0.118	0.010	0.059
Mean	0.079	0.182	0.055	0.041	0.501	0.082	0.116	0.010	0.059
%RSD	0.540	0.311	0.638	8.057	1.241	4.983	2.256	0.704	0.361

	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	Reading								
#1	0.110	0.160	0.080	1.670	0.505	0.170	0.144	0.347	0.224
#2	0.123	0.163	0.077	1.702	0.504	0.169	0.144	0.347	0.224
Mean	0.117	0.162	0.078	1.686	0.505	0.170	0.144	0.347	0.224
%RSD	8.005	1.311	2.076	1.342	0.182	0.375	0.393	0.102	0.158

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	Reading								
#1	0.250	0.066	0.024	0.924	0.171	0.212	0.868	0.105	0.018
#2	0.251	0.066	0.025	0.927	0.175	0.213	0.864	0.106	0.017
Mean	0.251	0.066	0.025	0.925	0.173	0.212	0.866	0.106	0.017
%RSD	0.113	0.215	2.016	0.214	1.308	0.433	0.384	0.938	0.813

	Zr	Pb	Se
	Reading	Reading	Reading
#1	4.082		
#2	4.087		
Mean	4.085	0.000	0.000
%RSD	0.069	0.000	0.000

Method : Paragon File : 111118A Printed : 11/21/2011 12:54:22
 SampleId1 : C1 SampleId2 : [STD]
 Analysis commenced : 11/18/2011 13:48:46

Dilution ratio : 1.00000 to 1.00000 Tray :

Position : TUBE14

Raw intensities

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	Reading								
#1	0.311	0.350	0.189	0.110	0.016	0.796	3.467	0.106	0.101
#2	0.309	0.348	0.190	0.109	0.016	0.791	3.431	0.106	0.100
Mean	0.310	0.349	0.190	0.109	0.016	0.794	3.449	0.106	0.101
%RSD	0.456	0.487	0.298	0.713	0.889	0.383	0.734	0.000	0.563

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	Reading								
#1	0.105	0.628	0.126	0.097	0.514	0.088	0.476	0.024	0.064
#2	0.106	0.623	0.126	0.097	0.522	0.090	0.475	0.024	0.064
Mean	0.105	0.626	0.126	0.097	0.518	0.089	0.475	0.024	0.064
%RSD	0.538	0.554	0.112	0.219	1.105	0.953	0.238	0.299	0.330

	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	Reading								
#1	0.172	0.211	0.091	2.303	0.728	1.581	0.165	0.383	0.245
#2	0.171	0.213	0.093	2.318	0.730	1.574	0.163	0.384	0.250
Mean	0.171	0.212	0.092	2.310	0.729	1.577	0.164	0.383	0.248
%RSD	0.124	0.533	1.379	0.465	0.194	0.318	0.648	0.185	1.600

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	Reading								
#1	0.566	0.076	0.043	5.530	0.441	0.237	7.669	0.243	0.020
#2	0.565	0.076	0.044	5.489	0.439	0.235	7.582	0.244	0.020
Mean	0.565	0.076	0.044	5.509	0.440	0.236	7.625	0.244	0.020
%RSD	0.113	0.000	0.650	0.522	0.386	0.479	0.809	0.523	0.349

	Zr	Pb	Se
	Reading	Reading	Reading
#1	39.908		
#2	39.673		
Mean	39.790	0.000	0.000
%RSD	0.416	0.000	0.000

Line calibration information

Analyte	Reporting name	C0	C1	C2	C3	Correlation coefficient	Low limit	High limit	Date of last regression
Ag 328.068	Ag	-0.000374	0.5018578	0.0024078	0	1.0000	0.001	3.514	11/18/2011 14:08:08
Al 308.215	Al	-0.3388062	4.5588914	0.0084363	0	0.99958	0.064	93.159	11/18/2011 14:08:09
As 189.042/2	As	0.0085843	1.0532547	0.0081091	0	1.0000	-0.010	4.578	11/18/2011 14:08:09
B 248.678/2	B	-0.014871	0.7628028	0.0011123	0	0.99999	0.004	12.867	11/18/2011 14:08:09
Ba 493.409	Ba	-0.0019007	0.4184482	0.0010812	0	1.0000	0.000	22.703	11/18/2011 14:08:09
Be 313.042	Be	-0.0084578	0.0188088	0.0000072	0	1.0000	0.472	58.539	11/18/2011 14:08:09
Bi 223.061	Bi	0.000002	1.7339026	-0.0034891	0	1.0000	-0.001	2.901	11/18/2011 14:08:09
Ca 317.933	Ca	-0.0997362	2.8787372	0.0071183	0	0.99983	0.005	131.301	11/18/2011 14:08:09
Cd 228.502/2	Cd	-0.001283	0.1910578	0.000475	0	1.0000	0.004	24.664	11/18/2011 14:08:09
Co 228.616	Co	0.000281	0.6880513	0.0023935	0	1.0000	-0.001	7.092	11/18/2011 14:08:09
Cr 267.718	Cr	-0.0017229	0.3137087	0.000267	0	1.0000	0.003	31.061	11/18/2011 14:08:09
Cu 324.753	Cu	-0.0111409	0.9248795	0.0008597	0	1.0000	0.011	10.718	11/18/2011 14:08:09
Fe 259.94	Fe	-0.0196946	1.1890322	0.0054998	0	1.0000	0.003	109.814	11/18/2011 14:08:10
K 768.491	K	-1.4212362	2.4907513	0.0041838	0	0.99954	0.500	87.548	11/18/2011 14:08:10
Li 670.784	Li	-0.007529	0.0353176	-0.000016	0	1.0000	0.077	328.147	11/18/2011 14:08:10
Mg 279.078	Mg	-0.0689904	4.4754958	0.0082252	0	0.99958	0.001	98.077	11/18/2011 14:08:10
Mn 257.61	Mn	-0.0012239	0.9192311	0.0061358	0	1.0000	0.000	10.185	11/18/2011 14:08:10
Mo 202.03/2	Mo	-0.0041435	0.8184837	0.0022072	0	1.0000	0.002	11.844	11/18/2011 14:08:10
Na 588.995	Na	-0.2252155	0.5320342	0.001439	0	0.99997	0.101	187.371	11/18/2011 14:08:10
Ni 231.ED4	Ni	-0.0038562	0.3330337	0.0002983	0	1.0000	0.005	29.288	11/18/2011 14:08:10
P 178.287/2	P	-0.0204643	2.274833	0.0148879	0	1.0000	0.003	19.501	11/18/2011 14:08:10
Pb 220.351	Pb I	0.0010838	0.2187253	0.0001278	0	1.0000	-0.007	44.364	11/18/2011 14:08:11
Pb 220.352/2	Pb II	-0.0038599	0.4284254	0.0004334	0	1.0000	0.002	22.773	11/18/2011 14:08:11
S 182.042	S	-0.0700192	31.7237918	0.4447858	0	1.0000	0.002	1.545	11/18/2011 14:08:11
Sb 208.838/2	Sb	-0.0049253	1.2245343	0.0177354	0	1.0000	0.002	1.600	11/18/2011 14:08:11
Se 196.021	Se I	0.001077	1.2617128	0.0064247	0	1.0000	0.000	3.885	11/18/2011 14:08:11
Se 196.021/2	Se II	-0.003478	0.8518472	0.0037441	0	1.0000	0.001	5.729	11/18/2011 14:08:11
Si 288.158	Si	-0.1374597	1.2821152	0.0012822	0	1.0000	0.093	38.239	11/18/2011 14:08:11
Sn 189.989	Sn	0.0008349	4.0961755	0.0403961	0	1.0000	0.000	2.385	11/18/2011 14:08:11
Sr 421.552	Sr	-0.0050511	0.1155774	0.0001467	0	1.0000	0.001	78.573	11/18/2011 14:08:11

Method report Paragon

Page

Th 283.7342	Th	-0.0619462	1.0126854	0.0079667	0	0.99966	0.049	2.005	11/18/2011 14:08:11
Ti 334.941	Ti	-0.002154	0.0993969	0.0000149	0	1.0000	-0.011	99.155	11/18/2011 14:08:12
Tl 190.8642	Tl	0.0103569	1.0213857	0.0017856	0	1.0000	-0.011	4.844	11/18/2011 14:08:12
U 385.958	U	-0.0356963	6.8653723	0.0092008	0	1.0000	0.001	7.218	11/18/2011 14:08:12
V 292.402	V	-0.0011584	0.4089908	0.0007064	0	1.0000	0.002	11.579	11/18/2011 14:08:12
Zn 208.2	Zn	-0.0032433	3.3009169	0.0521845	0	1.0000	0.000	2.898	11/18/2011 14:08:12
Zr 339.198	Zr	-0.0008363	0.131935	-0.0000497	0	1.0000	0.008	36.481	11/18/2011 14:08:13

Method : Paragon File : 111118A
 SampleId1 : MIXBHGH SampleId2 :
 Analysis commenced : 11/18/2011 14:08:47
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:25
 [CV]

Position : TUBE6

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	2.00202	0.02374	4.98590	9.97997	10.01401	0.98384	0.00110	-0.08822	4.92314
#2	1.99739	0.01999	5.01060	9.98203	10.00792	0.98372	0.00210	-0.08937	4.92202
Mean	1.99971	0.02186	4.99825	9.98100	10.01097	0.98378	0.00160	-0.08880	4.92258
%RSD	0.16355	12.11884	0.34947	0.01458	0.04300	0.00818	44.31583	0.91695	0.01598

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	4.93766	9.84617	10.11016	-0.02183	-0.16210	-0.00450	-0.11553	9.82916	9.89532
#2	4.93730	9.84657	10.10064	-0.02231	-0.15736	-0.00450	-0.11195	9.82770	9.90872
Mean	4.93748	9.84637	10.10540	-0.02207	-0.15973	-0.00450	-0.11374	9.82843	9.90202
%RSD	0.00511	0.00286	0.06666	1.52362	2.09857	0.00000	2.22573	0.01050	0.09571

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	-0.10341	9.92780	49.62365	9.91162	9.87444	0.00295	1.99593	4.99081	4.93837
#2	-0.10362	9.93088	49.50677	9.89546	9.89452	-0.00340	2.00104	4.97179	4.97056
Mean	-0.10352	9.92934	49.56521	9.90354	9.88448	-0.00022	1.99849	4.98130	4.95447
%RSD	0.14555	0.02196	0.16675	0.11539	0.14363	1996.98746	0.18075	0.26998	0.45952

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	49.63059	9.93617	9.95126	1.97344	9.88892	5.01154	-0.08717	4.96011	9.67217
#2	49.63488	9.94562	9.95488	1.98097	9.88313	5.00344	-0.09129	4.95266	9.67073
Mean	49.63274	9.94090	9.95307	1.97721	9.88603	5.00749	-0.08923	4.95638	9.67145
%RSD	0.00610	0.06715	0.02573	0.26959	0.04142	0.11440	3.26388	0.10632	0.01051

	Zr ppm	Pb calc	Se calc
#1	-0.07542	9.88682	4.95583
#2	-0.07651	9.89483	4.97097
Mean	-0.07597	9.89083	4.96340
%RSD	1.01361	0.05726	0.21572

Method : Paragon File : 111118A
 SampleId1 : MIXAHIGH SampleId2 :
 Analysis commenced : 11/18/2011 14:10:40
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:25
 [CV]

Position : TUBE11

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	0.00013	496.34422	-0.00042	-0.00704	-0.00063	0.00099	0.00503	493.86884	-0.00054
#2	0.00013	497.41144	0.00158	-0.00719	-0.00063	0.00099	0.00417	497.96666	-0.00059
Mean	0.00013	496.87783	0.00058	-0.00711	-0.00063	0.00099	0.00460	495.91775	-0.00056
%RSD	0.86855	0.15188	244.10510	1.51643	0.00000	0.54568	13.35398	0.58429	6.54449

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.00035	0.00129	-0.00855	193.36483	249.40916	9.78448	492.12105	-0.01363	0.00191
#2	0.00056	0.00092	-0.00882	194.88481	249.25097	9.77636	494.37240	-0.01409	0.00109
Mean	0.00046	0.00110	-0.00868	194.12482	249.33006	9.78042	493.24672	-0.01386	0.00150
%RSD	32.16746	24.04709	2.24858	0.55366	0.04486	0.05869	0.32275	2.34407	38.47903

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	149.60083	-0.00086	0.01002	-0.01710	0.00233	-0.00022	0.01140	-0.02637	0.00230
#2	149.36191	0.00027	0.01502	-0.01631	0.00311	0.00295	0.00307	-0.02125	0.00328
Mean	149.48137	-0.00030	0.01252	-0.01670	0.00272	0.00136	0.00723	-0.02381	0.00279
%RSD	0.11302	270.76971	28.26588	3.33303	20.33057	164.75711	81.45252	15.20385	25.06649

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	-0.01253	-0.00162	0.00571	-0.03552	-0.00127	0.00652	0.11139	-0.00813	-0.00951
#2	-0.01998	0.00780	0.00568	-0.02991	-0.00158	0.00246	0.10967	-0.00726	-0.00786
Mean	-0.01625	0.00309	0.00569	-0.03272	-0.00142	0.00449	0.11053	-0.00770	-0.00869
%RSD	32.40133	215.63814	0.43076	12.13102	15.30701	64.04389	1.10138	7.96545	13.42967

	Zr ppm	Pb calc	Se calc
#1	0.00602	-0.00414	-0.00725
#2	0.00593	-0.00336	-0.00488
Mean	0.00598	-0.00375	-0.00607
%RSD	1.10464	14.75847	27.55727

Method : Paragon File : 111118A
SampleId1 : MIXCHIGH SampleId2 :
Analysis commenced : 11/18/2011 14:12:34
Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:25
[CV]

Position : TUBE14

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.01182	0.35702	-0.00853	0.00387	-0.00142	0.00510	5.04089	-0.04763	-0.00174
#2	-0.01102	0.34382	-0.00347	0.00387	-0.00138	0.00501	5.01631	-0.05022	-0.00166
Mean	-0.01142	0.35042	-0.00600	0.00387	-0.00140	0.00505	5.02860	-0.04893	-0.00170
%RSD	4.98774	2.66320	59.54758	0.00000	2.10853	1.20392	0.34573	3.74477	3.32695

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
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	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	0.00557	-0.00464	-0.01497	-0.00459	-0.13365	-0.00412	-0.26635	0.00365	-0.00144
#2	0.00605	-0.00469	-0.01464	-0.00424	-0.11943	-0.00412	-0.26993	0.00374	-0.00259
Mean	0.00581	-0.00467	-0.01480	-0.00441	-0.12654	-0.00412	-0.26814	0.00369	-0.00202
%RSD	5.86786	0.84541	1.58153	5.71421	7.94702	0.06062	0.94407	1.75963	40.20321

	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.12679	-0.00003	0.00001	-0.02022	0.01599	49.63762	0.00176	-0.00008	-0.00253
#2	-0.12796	-0.00183	0.00888	-0.01419	0.01244	49.66078	0.00064	-0.00588	0.00165
Mean	-0.12738	-0.00093	0.00444	-0.01721	0.01421	49.64920	0.00120	-0.00298	-0.00044
%RSD	0.65040	136.96238	141.14852	24.77088	17.63548	0.03299	65.47078	137.65322	672.25037

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.05732	0.02008	-0.00292	0.10132	0.00529	0.00184	49.94124	-0.01056	0.00072
#2	-0.05396	0.02008	-0.00299	0.10666	0.00521	0.00575	49.63404	-0.01032	-0.00093
Mean	-0.05564	0.02008	-0.00296	0.10399	0.00525	0.00379	49.78764	-0.01044	-0.00011
%RSD	4.27345	0.00033	1.65718	3.62949	1.07078	72.81829	0.43629	1.66226	1087.22428

	Zr	Pb	Se
	ppm	calc	calc
#1	4.97524	0.00393	-0.00171
#2	4.96533	0.00357	-0.00086
Mean	4.97028	0.00375	-0.00128
%RSD	0.14103	6.73577	47.14359

Method : Paragon File : 111118A
SampleId1 : ICV SampleId2 :
Analysis commenced : 11/18/2011 14:47:56
Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:26
[CV]

Position : STD1

Final concentrations

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	0.09268	25.94587	0.24783	0.49589	0.50190	0.24033	0.25293	24.41890	0.24697
#2	0.09278	25.79588	0.25121	0.49635	0.49972	0.23984	0.25016	24.38562	0.24394
Mean	0.09273	25.87087	0.24952	0.49612	0.50081	0.24009	0.25155	24.40226	0.24545
%RSD	0.07730	0.40995	0.95851	0.06536	0.30763	0.14485	0.78113	0.09641	0.87083

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	0.24564	0.49572	0.49868	10.15238	22.96549	0.24127	25.25913	0.50566	0.49245
#2	0.24508	0.49537	0.49571	10.13076	22.85571	0.24023	25.16959	0.50547	0.49212
Mean	0.24536	0.49554	0.49719	10.14157	22.91060	0.24075	25.21436	0.50557	0.49229
%RSD	0.15986	0.04995	0.42218	0.15078	0.33880	0.30592	0.25111	0.02590	0.04718

	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm

#1	23.37303	0.47359	2.51488	0.49732	0.51456	2.57566	0.24088	0.51961	0.51785
#2	23.27960	0.47379	2.50126	0.49959	0.51505	2.53432	0.23780	0.50264	0.52230
Mean	23.32632	0.47369	2.50807	0.49846	0.51481	2.55499	0.23934	0.51113	0.52007
%RSD	0.28322	0.02991	0.38383	0.32323	0.06836	1.14401	0.90942	2.34735	0.60488

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm								
#1	2.55233	0.52182	0.24946	0.14371	0.25084	0.24950	2.45004	0.24482	0.49673
#2	2.54370	0.50827	0.24878	0.14081	0.25077	0.25501	2.45762	0.24482	0.50137
Mean	2.54802	0.51504	0.24912	0.14226	0.25080	0.25225	2.45383	0.24482	0.49905
%RSD	0.23955	1.86039	0.19458	1.44193	0.01963	1.54603	0.21826	0.00121	0.65792

	Zr	Pb	Se
	ppm	calc	calc
#1	0.49579	0.50882	0.51844
#2	0.49524	0.50991	0.51575
Mean	0.49552	0.50936	0.51709
%RSD	0.07845	0.15141	0.36687

Method : Paragon

File : 111118A

Printed : 11/21/2011 12:55:26

SampleId1 : ICB

SampleId2 :

[CB]

Analysis commenced : 11/18/2011 14:49:51

Dilution ratio : 1.00000 to 1.00000 Tray :

Position : STD2

Final concentrations

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	ppm								
#1	-0.00041	-0.06173	0.00042	-0.00507	-0.00113	-0.00071	-0.00123	-0.07354	-0.00039
#2	-0.00035	-0.04522	-0.00347	-0.00591	-0.00092	-0.00067	-0.00088	-0.06260	-0.00082
Mean	-0.00038	-0.05348	-0.00153	-0.00549	-0.00102	-0.00069	-0.00105	-0.06807	-0.00060
%RSD	9.72422	21.83794	180.48200	10.80371	14.40996	4.09278	23.27941	11.36399	50.56865

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm								
#1	-0.00047	-0.00111	-0.00029	-0.01030	-0.16409	-0.00160	-0.04796	-0.00067	-0.00059
#2	-0.00006	0.00011	-0.00039	-0.00566	-0.16285	-0.00155	-0.03587	-0.00067	-0.00051
Mean	-0.00026	-0.00050	-0.00034	-0.00798	-0.16347	-0.00157	-0.04191	-0.00067	-0.00055
%RSD	110.23262	173.97432	18.99301	41.08340	0.53961	2.33188	20.38656	0.00000	10.57198

	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	ppm	ppm							
#1	-0.17436	-0.00146	-0.01501	-0.00189	0.00024	-0.03829	-0.00085	-0.00551	0.00035
#2	-0.16724	-0.00073	-0.01159	-0.00220	-0.00237	-0.02560	-0.00024	-0.00475	0.00325
Mean	-0.17080	-0.00109	-0.01330	-0.00205	-0.00107	-0.03195	-0.00054	-0.00513	0.00180
%RSD	2.94971	47.35195	18.14195	10.73821	173.53236	28.08499	77.90472	10.40941	113.66270

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.01573	-0.00531	-0.00182	-0.00989	-0.00318	0.00145	-0.03226	-0.00095	-0.00058

#2	-0.01434	0.00002	-0.00169	-0.01161	-0.00282	-0.00723	-0.03363	-0.00050	-0.00091
Mean	-0.01504	-0.00264	-0.00176	-0.01075	-0.00300	-0.00289	-0.03295	-0.00073	-0.00075
%RSD	6.54031	142.43363	5.11842	11.34987	8.43732	212.34413	2.95370	43.75770	31.19798

	Zr ppm	Pb calc	Se calc
#1	0.00079	-0.00047	-0.00160
#2	0.00099	-0.00232	0.00059
Mean	0.00089	-0.00139	-0.00051
%RSD	16.14569	93.82483	305.01188

Method : Paragon File : 111118A
 SampleId1 : CRI SampleId2 :
 Analysis commenced : 11/18/2011 14:51:45
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:26

[FLEXQC]

Position : STD3

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	0.01849	0.41078	0.01453	0.41168	0.42149	0.01124	0.05189	5.08675	0.01119
#2	0.01854	0.41310	0.01369	0.40763	0.42212	0.01119	0.04687	5.08443	0.01062
Mean	0.01852	0.41194	0.01411	0.40965	0.42181	0.01121	0.04938	5.08559	0.01091
%RSD	0.20101	0.39932	4.22185	0.69895	0.10526	0.30333	7.19540	0.03230	3.67959

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.10196	0.02114	0.05180	0.20404	3.76425	0.01630	5.24636	0.03252	0.02004
#2	0.10147	0.02136	0.05272	0.20416	3.76575	0.01634	5.25040	0.03261	0.02061
Mean	0.10172	0.02125	0.05226	0.20410	3.76500	0.01632	5.24838	0.03257	0.02033
%RSD	0.33467	0.72943	1.25083	0.04127	0.02826	0.17630	0.05445	0.19969	1.99350

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	4.13426	0.08075	0.18232	0.00578	0.00771	0.20918	0.11843	0.02139	0.01138
#2	4.13615	0.07782	0.20145	0.00536	0.00981	0.19015	0.11818	0.00940	0.01087
Mean	4.13520	0.07929	0.19189	0.00557	0.00876	0.19967	0.11830	0.01540	0.01113
%RSD	0.03241	2.61491	7.04946	5.29132	16.98227	6.74252	0.14526	55.05663	3.24806

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	0.10786	0.09791	0.02047	0.00367	0.01977	0.02827	0.18180	0.10359	0.05125
#2	0.10597	0.10078	0.02049	0.00474	0.01985	0.01969	0.18249	0.10294	0.05092
Mean	0.10691	0.09935	0.02048	0.00420	0.01981	0.02398	0.18215	0.10326	0.05109
%RSD	1.25180	2.04171	0.07985	17.97236	0.28380	25.30002	0.26651	0.44848	0.45710

	Zr ppm	Pb calc	Se calc
#1	0.05370	0.00707	0.01472
#2	0.05346	0.00833	0.01038

Mean 0.05358 0.00770 0.01255UNDGREEN
 %RSD 0.31591 11.61529 24.41309

Method : Paragon File : 111118A
 SampleId1 : ICSA SampleId2 :
 Analysis commenced : 11/18/2011 14:53:40
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:26
 [FLEXQC]

Position : STD4

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	0.00041	276.31459	-0.00147	-0.00698	-0.00096	0.00002	0.00520	264.43788	-0.00041
#2	-0.00041	277.30235	-0.00337	-0.00660	-0.00100	0.00000	0.01006	263.81683	-0.00015
Mean	0.00000	276.80847	-0.00242	-0.00679	-0.00098	0.00001	0.00763	264.12735	-0.00028
%RSD	43556.06966	0.25232	55.34696	3.97270	3.00445	120.96451	44.95953	0.16626	65.42542

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.00104	-0.00199	-0.00303	111.19653	-0.21549	-0.00140	273.73741	0.00218	-0.00010
#2	0.00063	-0.00133	-0.00330	111.19653	-0.23071	-0.00143	274.64496	0.00209	-0.00116
Mean	0.00083	-0.00166	-0.00317	111.19653	-0.22310	-0.00141	274.19118	0.00213	-0.00063
%RSD	35.07748	28.26580	6.01877	0.00000	4.82336	1.48267	0.23405	3.04974	119.56039

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	-0.13470	0.00084	-0.01296	-0.01155	0.00162	0.03467	-0.00206	-0.01941	0.00967
#2	-0.13437	0.00077	0.00069	-0.01281	0.00321	0.02833	-0.00219	-0.01715	0.00431
Mean	-0.13453	0.00080	-0.00613	-0.01218	0.00241	0.03150	-0.00213	-0.01828	0.00699
%RSD	0.17424	5.85658	157.35518	7.32315	46.63772	14.24320	4.60306	8.75149	54.28673

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	-0.02025	0.00370	-0.00032	-0.04013	-0.00070	0.00305	0.03757	-0.00660	-0.00157
#2	-0.01961	0.00125	-0.00034	-0.03391	-0.00084	0.00386	0.02727	-0.00639	-0.00256
Mean	-0.01993	0.00247	-0.00033	-0.03702	-0.00077	0.00345	0.03242	-0.00649	-0.00207
%RSD	2.27925	70.23371	4.96883	11.87778	12.73998	16.61434	22.46105	2.22628	33.85140

	Zr ppm	Pb calc	Se calc
#1	0.00508	-0.00277	-0.00001
#2	0.00483	-0.00212	-0.00284
Mean	0.00495	-0.00244	-0.00143
%RSD	3.60147	18.56277	140.10334

Method : Paragon File : 111118A
 SampleId1 : ICSAB SampleId2 :
 Analysis commenced : 11/18/2011 14:55:35
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:26
 [FLEXQC]

Position : STD5

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	0.18854	222.16445	0.10877	1.02001	0.52080	0.47737	0.53504	263.60380	0.98219
#2	0.18863	221.81434	0.10233	1.01656	0.52101	0.47647	0.52655	263.56962	0.97773
Mean	0.18859	221.98940	0.10555	1.01829	0.52091	0.47692	0.53080	263.58671	0.97996
%RSD	0.03617	0.11152	4.31022	0.23930	0.02845	0.13442	1.13068	0.00917	0.32190

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.47254	0.47054	0.53816	111.61980	-0.23320	1.14145	276.00258	0.49622	0.97597
#2	0.47130	0.47109	0.53676	111.61725	-0.23320	1.14116	275.42375	0.49612	0.97811
Mean	0.47192	0.47082	0.53746	111.61853	-0.23320	1.14131	275.71317	0.49617	0.97704
%RSD	0.18602	0.08370	0.18442	0.00162	0.00000	0.01830	0.14845	0.01319	0.15500

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	-0.14409	0.92201	1.01780	0.03197	0.05922	1.11072	0.58517	0.03095	0.05731
#2	-0.14216	0.92566	1.00019	0.03800	0.05407	1.09167	0.57574	0.04623	0.05527
Mean	-0.14312	0.92383	1.00900	0.03499	0.05664	1.10119	0.58045	0.03859	0.05629
%RSD	0.95531	0.27923	1.23468	12.19615	6.43389	1.22351	1.14769	28.00959	2.57009

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	0.98618	1.05342	1.02303	0.00219	0.98991	0.10194	10.26565	0.47607	0.92011
#2	0.98920	1.05054	1.02200	0.00913	0.98867	0.10348	10.28220	0.47705	0.92044
Mean	0.98769	1.05198	1.02251	0.00566	0.98929	0.10271	10.27392	0.47656	0.92028
%RSD	0.21617	0.19361	0.07184	86.69953	0.08836	1.06013	0.11387	0.14613	0.02559

	Zr ppm	Pb calc	Se calc
#1	0.49350	0.05015	0.04853
#2	0.49265	0.04872	0.05226
Mean	0.49308	0.04943	0.05040
%RSD	0.12216	2.04307	5.22714

Method : Paragon File : 111118A
 SampleId1 : CCV SampleId2 :
 Analysis commenced : 11/18/2011 15:00:31
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:27
 [CV]

Position : STD6

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	0.19795	53.55490	0.50716	1.02445	1.05098	0.48562	0.53037	48.47555	0.49576
#2	0.19828	53.42783	0.51618	1.02353	1.04684	0.48572	0.53328	48.67926	0.49681
Mean	0.19811	53.49137	0.51167	1.02399	1.04891	0.48567	0.53182	48.57740	0.49629
%RSD	0.12032	0.16797	1.24634	0.06346	0.27864	0.01463	0.38752	0.29653	0.14837

ted: 11/21/2011 12:56:06 User: MIKE LUNDGREEN

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.48778	0.98697	1.05519	20.56983	49.95408	0.54400	51.08072	1.00040	0.99425
#2	0.48646	0.98887	1.04695	20.60358	49.62415	0.54000	50.99487	1.00264	0.99137
Mean	0.48712	0.98792	1.05107	20.58671	49.78911	0.54200	51.03779	1.00152	0.99281
%RSD	0.19124	0.13623	0.55388	0.11593	0.46857	0.52099	0.11894	0.15802	0.20536

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	49.68968	0.96120	5.12319	1.01100	1.03503	5.31038	0.50766	1.06806	1.06438
#2	49.48065	0.96070	5.11009	1.01248	1.03154	5.28169	0.49845	1.05964	1.07188
Mean	49.58516	0.96095	5.11664	1.01174	1.03328	5.29604	0.50305	1.06385	1.06813
%RSD	0.29809	0.03695	0.18116	0.10324	0.23886	0.38301	1.29518	0.55958	0.49646

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	5.15796	1.05522	0.51900	0.30304	0.50657	0.53029	5.12789	0.49086	0.95941
#2	5.16612	1.04863	0.51698	0.31416	0.50559	0.54022	5.10723	0.49034	0.96774
Mean	5.16204	1.05193	0.51799	0.30860	0.50608	0.53525	5.11756	0.49060	0.96358
%RSD	0.11187	0.44270	0.27592	2.54679	0.13770	1.31147	0.28547	0.07601	0.61115

	Zr ppm	Pb calc	Se calc
#1	1.00130	1.02703	1.06561
#2	0.99911	1.02519	1.06781
Mean	1.00021	1.02611	1.06671
%RSD	0.15509	0.12654	0.14574

Method : Paragon

File : 111118A

Printed : 11/21/2011 12:55:27

SampleId1 : CCB

SampleId2 :

[CB]

Analysis commenced : 11/18/2011 15:02:35

Dilution ratio : 1.00000 to 1.00000 Tray :

Position : STD2

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00077	-0.01252	-0.00021	-0.00515	-0.00092	-0.00020	0.00172	-0.05512	-0.00044
#2	-0.00051	0.02101	-0.00084	-0.00446	-0.00033	0.00001	0.00120	-0.02287	-0.00074
Mean	-0.00064	0.00424	-0.00053	-0.00481	-0.00063	-0.00010	0.00146	-0.03899	-0.00059
%RSD	28.80812	558.64618	84.91616	10.10229	65.84197	151.82177	25.12087	58.47345	36.02021

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00006	-0.00098	-0.00039	-0.00352	-0.23495	-0.00181	-0.02826	-0.00049	0.00048
#2	-0.00040	-0.00045	-0.00002	0.00908	-0.22696	-0.00165	0.00128	-0.00012	-0.00042
Mean	-0.00023	-0.00072	-0.00020	0.00278	-0.23096	-0.00173	-0.01349	-0.00030	0.00003
%RSD	105.72733	52.70505	130.48664	320.61321	2.44417	6.46161	154.79914	85.35111	2496.82011

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	-0.16420	-0.00073	-0.01705	-0.00236	-0.00010	-0.03512	0.00051	-0.00059	-0.00322
#2	-0.14763	-0.00126	-0.00795	-0.00130	-0.00168	-0.02878	-0.00220	-0.00576	0.00368
Mean	-0.15591	-0.00099	-0.01250	-0.00183	-0.00089	-0.03195	-0.00084	-0.00318	0.00023
%RSD	7.51582	37.89858	51.45961	41.26181	126.05281	14.04249	226.84828	115.20646	2133.82736

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	-0.01219	0.00125	-0.00168	-0.00289	-0.00296	-0.00314	-0.03226	-0.00075	-0.00124
#2	-0.01043	-0.00449	-0.00142	-0.00457	-0.00265	0.00207	-0.03433	-0.00087	-0.00025
Mean	-0.01131	-0.00162	-0.00155	-0.00373	-0.00281	-0.00054	-0.03330	-0.00081	-0.00075
%RSD	11.04549	250.39374	12.14019	31.85453	7.76751	686.35765	4.39206	10.52162	93.59407

	Zr ppm	Pb calc	Se calc
#1	0.00042	-0.00085	-0.00235
#2	0.00080	-0.00155	0.00053
Mean	0.00061	-0.00120	-0.00091
%RSD	44.64244	41.27452	224.98583

Method : Paragon File : 111118A
SampleId1 : F111115-1LCS SampleId2 :
Analysis commenced : 11/18/2011 15:04:40
Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:27
[SAMPLE]

Position : TUBE1

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	0.08950	2.12602	1.96494	0.48740	2.03995	0.04563	-0.00240	36.97164	0.04652
#2	0.09038	2.11953	1.95952	0.48702	2.03090	0.04568	-0.00361	36.85856	0.04761
Mean	0.08994	2.12278	1.96223	0.48721	2.03543	0.04566	-0.00301	36.91510	0.04706
%RSD	0.69007	0.21600	0.19516	0.05546	0.31426	0.07221	28.45367	0.21661	1.63706

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.47703	0.19068	0.25266	0.97423	38.43887	0.48827	37.98944	0.49186	0.97687
#2	0.47460	0.19102	0.25330	0.97602	38.17868	0.48442	37.87677	0.49085	0.97350
Mean	0.47581	0.19085	0.25298	0.97512	38.30878	0.48635	37.93310	0.49135	0.97518
%RSD	0.36115	0.12500	0.17778	0.13033	0.48026	0.56022	0.21003	0.14656	0.24489

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	37.46859	0.47075	-0.00909	0.48826	0.50836	-0.02243	0.48206	2.01943	2.04872
#2	37.14522	0.46915	-0.00568	0.49570	0.50012	-0.02560	0.48413	2.02791	2.04541
Mean	37.30691	0.46995	-0.00738	0.49198	0.50424	-0.02402	0.48310	2.02367	2.04706
%RSD	0.61291	0.24114	32.67294	1.06961	1.15538	9.33980	0.30344	0.29610	0.11415

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
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	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	2.05092	0.51292	0.50674	-0.02888	0.49252	2.08122	-0.06039	0.48719	0.47650
#2	2.03746	0.51045	0.50465	-0.02982	0.49149	2.08153	-0.04529	0.48772	0.47849
Mean	2.04419	0.51168	0.50569	-0.02935	0.49200	2.08138	-0.05284	0.48745	0.47749
%RSD	0.46562	0.34031	0.29236	2.27760	0.14736	0.01078	20.21058	0.07750	0.29464

	Zr ppm	Pb calc	Se calc
#1	0.00354	0.50167	2.03897
#2	0.00353	0.49865	2.03958
Mean	0.00353	0.50016	2.03927
%RSD	0.32480	0.42657	0.02142

Method : Paragon File : 111118A
 SampleId1 : 1111179-1 SampleId2 :
 Analysis commenced : 11/18/2011 15:06:28
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:27
 [SAMPLE]
 Position : TUBE2

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	0.00013	-0.00405	-0.00032	0.03124	0.09922	-0.00030	0.00051	5.72371	-0.00050
#2	0.00006	-0.00317	-0.00137	0.03132	0.09859	-0.00037	-0.00053	5.73534	-0.00043
Mean	0.00010	-0.00361	-0.00084	0.03128	0.09890	-0.00033	-0.00001	5.72952	-0.00047
%RSD	47.63405	17.14076	88.42938	0.17247	0.44715	14.92083	6588.18460	0.14353	9.80781

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00054	-0.00070	0.00018	-0.00221	2.10876	0.00359	1.32707	0.00392	-0.00092
#2	-0.00026	-0.00045	0.00035	-0.00305	2.09174	0.00351	1.32618	0.00392	0.00129
Mean	-0.00040	-0.00058	0.00026	-0.00263	2.10025	0.00355	1.32663	0.00392	0.00019
%RSD	48.48242	29.85854	46.77637	22.37361	0.57292	1.57847	0.04775	0.00000	825.92967

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	162.57148	-0.00009	-0.00773	-0.00226	-0.00030	42.39288	-0.00379	0.00546	0.00206
#2	162.18073	-0.00026	0.00115	0.00392	0.00080	42.36327	-0.00329	0.00005	0.00240
Mean	162.37611	-0.00018	-0.00329	0.00083	0.00025	42.37807	-0.00354	0.00275	0.00223
%RSD	0.17016	66.05362	190.68452	525.63219	313.05264	0.04940	10.11397	139.04087	10.79471

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	4.59843	-0.00080	0.28596	-0.00356	-0.00247	-0.00111	-0.04188	-0.00030	0.01031
#2	4.59804	0.00166	0.28505	-0.00471	-0.00267	0.00197	-0.02677	-0.00030	0.00899
Mean	4.59823	0.00043	0.28550	-0.00414	-0.00257	0.00043	-0.03432	-0.00030	0.00965
%RSD	0.00608	405.84100	0.22462	19.65341	5.46651	504.27895	31.11704	0.03828	9.67574

	Zr ppm	Pb calc	Se calc
#1	0.00354	0.50167	2.03897
#2	0.00353	0.49865	2.03958
Mean	0.00353	0.50016	2.03927
%RSD	0.32480	0.42657	0.02142

#1	-0.00092	-0.00095	0.00319	UNDGREEN
#2	-0.00043	0.00184	0.00162	
Mean	-0.00068	0.00044	0.00240	
%RSD	51.83070	445.81757	46.34637	

Method : Paragon File : 111118A
SampleId1 : 1111184-1 SampleId2 :
Analysis commenced : 11/18/2011 15:08:18
Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:27

[SAMPLE]

Position : TUBE3

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00128	-0.03604	0.00011	0.01789	0.07124	-0.00040	-0.00175	55.03528	-0.00105
#2	-0.00004	-0.04422	0.00042	0.01858	0.07095	-0.00048	-0.00556	55.29057	-0.00073
Mean	-0.00066	-0.04013	0.00026	0.01823	0.07110	-0.00044	-0.00366	55.16293	-0.00089
%RSD	133.38481	14.42950	84.72610	2.66278	0.29018	13.54299	73.67109	0.32724	25.54268

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00119	-0.00157	0.00018	-0.01280	1.78925	0.00063	14.55526	0.21864	-0.00083
#2	-0.00085	-0.00086	0.00017	-0.01327	1.77600	0.00061	14.48301	0.21864	0.00023
Mean	-0.00102	-0.00121	0.00017	-0.01304	1.78263	0.00062	14.51914	0.21864	-0.00030
%RSD	23.66047	41.37739	6.26759	2.58001	0.52589	1.63976	0.35189	0.00000	249.21906

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	23.04443	-0.00013	-0.01273	-0.00291	0.00202	3.44726	-0.00182	-0.00325	-0.00161
#2	22.82535	-0.00016	-0.01228	-0.00361	0.00127	3.41862	-0.00072	-0.00223	-0.00399
Mean	22.93489	-0.00014	-0.01250	-0.00326	0.00165	3.43294	-0.00127	-0.00274	-0.00280
%RSD	0.67543	16.24591	2.57297	15.15438	32.08780	0.58991	61.45046	26.46858	60.27690

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	4.24552	0.00002	1.14274	-0.02052	-0.00341	-0.00159	-0.05079	-0.00071	0.00272
#2	4.23444	0.00084	1.13822	-0.01087	-0.00284	0.00067	-0.03088	-0.00046	0.00338
Mean	4.23998	0.00043	1.14048	-0.01569	-0.00312	-0.00046	-0.04084	-0.00059	0.00305
%RSD	0.18485	134.95759	0.28025	43.48418	12.82762	348.06236	34.47345	29.58525	15.31635

	Zr ppm	Pb calc	Se calc
#1	-0.00005	0.00038	-0.00215
#2	-0.00055	-0.00035	-0.00340
Mean	-0.00030	0.00001	-0.00278
%RSD	116.74532	3841.95734	31.79945

Method : Paragon File : 111118A
SampleId1 : IP111116-5MB SampleId2 :
Analysis commenced : 11/18/2011 15:10:06

Printed : 11/21/2011 12:55:28

[SAMPLE]

Dilution ratio : 1.00000 to 1.00000 Tray :

Position : TUBE4

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00139	-0.04443	-0.00242	-0.00736	-0.00150	-0.00053	-0.00626	-0.08160	-0.00100
#2	-0.00035	-0.04885	-0.00190	-0.00622	-0.00138	-0.00058	-0.00071	-0.07872	-0.00052
Mean	-0.00087	-0.04664	-0.00216	-0.00679	-0.00144	-0.00055	-0.00348	-0.08016	-0.00076
%RSD	84.41878	6.70783	17.24939	11.91809	6.14244	7.32471	112.69632	2.53940	43.99301

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00102	-0.00145	-0.00066	-0.01803	-0.25765	-0.00204	-0.06899	-0.00104	-0.00059
#2	-0.00027	-0.00127	-0.00076	-0.01732	-0.24468	-0.00202	-0.06183	-0.00086	-0.00231
Mean	-0.00064	-0.00136	-0.00071	-0.01767	-0.25116	-0.00203	-0.06541	-0.00095	-0.00145
%RSD	83.10222	9.62223	9.71032	2.85444	3.65213	1.00388	7.74110	13.71167	83.94838

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	-0.18226	-0.00179	-0.00613	-0.00144	-0.00001	-0.02560	-0.00145	-0.00640	-0.00093
#2	-0.18093	-0.00156	-0.02206	0.00023	-0.00238	-0.03195	-0.00478	-0.00324	-0.00237
Mean	-0.18160	-0.00168	-0.01410	-0.00060	-0.00119	-0.02878	-0.00312	-0.00482	-0.00165
%RSD	0.51610	9.83014	79.88100	196.03823	140.42908	15.59061	75.42200	46.37941	62.07617

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	-0.01774	0.00043	-0.00194	-0.01093	-0.00326	0.00083	-0.03843	-0.00096	-0.00157
#2	-0.01372	0.00166	-0.00188	-0.00541	-0.00285	0.00339	-0.03225	-0.00071	0.00041
Mean	-0.01573	0.00104	-0.00191	-0.00817	-0.00305	0.00211	-0.03534	-0.00083	-0.00058
%RSD	18.08431	83.25979	2.14320	47.77117	9.43713	85.75832	12.36103	20.85292	240.17247

	Zr ppm	Pb calc	Se calc
#1	0.00009	-0.00048	-0.00275
#2	-0.00012	-0.00151	-0.00266
Mean	-0.00002	-0.00100	-0.00270
%RSD	836.35545	72.75216	2.25061

Method : Paragon File : 111118A

Printed : 11/21/2011 12:55:28

SampleId1 : IP111116-5LCS SampleId2 :

[SAMPLE]

Analysis commenced : 11/18/2011 15:11:54

Dilution ratio : 1.00000 to 1.00000 Tray :

Position : TUBE5

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	0.09012	2.15141	2.02378	0.50475	2.02647	0.04856	0.00160	37.39235	0.04774
#2	0.08939	2.12867	1.98141	0.49390	2.00292	0.04758	0.00505	36.69081	0.04688

Mean	0.08976	2.14004	2.00259	0.49933	2.01469	0.04807	0.00332	37.04158	0.04731
%RSD	0.58059	0.75137	1.49620	1.53689	0.82649	1.44061	73.31669	1.33922	1.28215
	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	0.48032	0.19312	0.25413	0.97447	36.29066	0.50023	38.26931	0.49649	0.97382
#2	0.47138	0.19020	0.25125	0.95973	35.94623	0.49504	37.69862	0.48835	0.95974
Mean	0.47585	0.19166	0.25269	0.96710	36.11845	0.49764	37.98396	0.49242	0.96678
%RSD	1.32776	1.07872	0.80409	1.07751	0.67430	0.73638	1.06240	1.16993	1.03019
	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	37.22296	0.47059	-0.00886	0.49876	0.51149	-0.01609	0.48560	2.15542	2.18274
#2	36.88685	0.46364	-0.00795	0.49515	0.49989	-0.02243	0.47820	2.12283	2.15870
Mean	37.05491	0.46711	-0.00841	0.49695	0.50569	-0.01926	0.48190	2.13913	2.17072
%RSD	0.64139	1.05127	7.65201	0.51359	1.62223	23.29508	1.08518	1.07726	0.78296
	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	2.08913	0.51620	0.50400	-0.02880	0.49590	2.11682	-0.04185	0.48863	0.48280
#2	2.05917	0.50717	0.49684	-0.03194	0.48831	2.06703	-0.03567	0.48226	0.47517
Mean	2.07415	0.51168	0.50042	-0.03037	0.49211	2.09193	-0.03876	0.48544	0.47898
%RSD	1.02108	1.24717	1.01165	7.31237	1.08993	1.68291	11.29058	0.92763	1.12594
	Zr	Pb	Se						
	ppm	calc	calc						
#1	0.00172	0.50725	2.17364						
#2	0.00202	0.49831	2.14676						
Mean	0.00187	0.50278	2.16020						
%RSD	11.28999	1.25733	0.88001						

Method : Paragon File : 111118A
SampleId1 : 1111037-3 SampleId2 :
Analysis commenced : 11/18/2011 15:13:42
Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:28
[SAMPLE]

Position : TUBE6

Final concentrations

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00024	-0.02360	0.00621	0.01003	0.15444	-0.00056	-0.00140	120.57967	-0.00104
#2	-0.00039	-0.02663	-0.00284	0.00919	0.15473	-0.00061	-0.00279	120.64267	-0.00027
Mean	-0.00032	-0.02511	0.00169	0.00961	0.15459	-0.00058	-0.00209	120.61117	-0.00065
%RSD	33.27547	8.53662	379.95169	6.17301	0.13360	5.75795	46.94105	0.03694	83.07436
	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00032	-0.00095	-0.00011	0.00504	0.70316	0.00808	10.47517	-0.00012	-0.00059
#2	-0.00025	-0.00073	-0.00001	0.00349	0.71140	0.00812	10.46661	-0.00012	-0.00133
Mean	-0.00029	-0.00084	-0.00006	0.00427	0.70728	0.00810	10.47089	-0.00012	-0.00096

%RSD	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
17.02209	7.04598	-0.00006	0.02412	0.00331	-0.00418	6.74882	-0.00574	0.00017	-0.00015
18.92332	7.02019	-0.00083	0.01298	0.00054	-0.00082	6.74243	-0.00245	0.00167	0.00334
120.57750	7.03308	-0.00044	0.01855	0.00192	-0.00250	6.74562	-0.00410	0.00092	0.00159
25.62232	%RSD	121.80062	42.49558	101.96278	95.04496	0.06691	56.92726	115.88192	155.11840

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	9.82087	-0.00285	0.16715	-0.01692	-0.00228	0.00595	-0.03364	-0.00058	0.00107
#2	9.80960	0.00043	0.16708	-0.01821	-0.00243	0.00758	-0.04325	-0.00017	0.00140
Mean	9.81523	-0.00121	0.16712	-0.01757	-0.00236	0.00676	-0.03845	-0.00038	0.00123
%RSD	0.08120	191.43603	0.02945	5.22088	4.47149	17.01772	17.67516	76.36330	18.93966

	Zr ppm	Pb calc	Se calc
#1	-0.00108	-0.00169	-0.00005
#2	-0.00130	-0.00037	0.00278
Mean	-0.00119	-0.00103	0.00137
%RSD	12.99500	90.73428	146.33895

Method : Paragon File : 111118A
SampleId1 : 1111037-3D SampleId2 :
Analysis commenced : 11/18/2011 15:15:31
Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:28
[SAMPLE]

Position : TUBE7

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00024	-0.02139	0.00021	0.00980	0.15507	-0.00056	-0.00105	120.57591	-0.00052
#2	-0.00066	-0.02227	-0.00674	0.00965	0.15407	-0.00059	0.00016	120.01255	-0.00066
Mean	-0.00045	-0.02183	-0.00326	0.00973	0.15457	-0.00057	-0.00045	120.29423	-0.00059
%RSD	66.19704	2.83445	150.56397	1.10916	0.45811	4.34352	192.37608	0.33115	17.13497

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00053	-0.00076	-0.00048	0.00611	0.69167	0.00805	10.48688	-0.00021	-0.00149
#2	-0.00032	-0.00070	-0.00020	0.00623	0.68717	0.00801	10.42607	-0.00012	-0.00329
Mean	-0.00043	-0.00073	-0.00034	0.00617	0.68942	0.00803	10.45647	-0.00017	-0.00239
%RSD	33.94556	5.99815	57.87837	1.36308	0.46114	0.41218	0.41124	38.98332	53.29583

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	7.08549	-0.00153	0.02094	-0.00083	-0.00100	6.78073	-0.00306	0.00395	0.00172
#2	7.00907	-0.00039	0.02390	-0.00092	0.00059	6.72328	-0.00124	0.00824	-0.00348
Mean	7.04728	-0.00096	0.02242	-0.00087	-0.00020	6.75201	-0.00215	0.00609	-0.00088
%RSD	0.76675	83.32579	9.32940	7.36873	551.84003	0.60161	59.88588	49.79241	418.50474

ted: 11/21/2011 12:56:06 User: MIKE LUNDGREEN

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	9.84395	0.00166	0.16784	-0.01483	-0.00264	-0.00335	-0.03708	-0.00042	0.00404
#2	9.78714	-0.00162	0.16681	-0.01463	-0.00242	0.00268	-0.03570	-0.00046	0.00404
Mean	9.81555	0.00002	0.16732	-0.01473	-0.00253	-0.00033	-0.03639	-0.00044	0.00404
%RSD	0.40926	12464.22957	0.43625	0.91683	6.10759	1278.52013	2.66798	6.57771	0.00000

	Zr ppm	Pb calc	Se calc
#1	-0.00144	-0.00094	0.00246
#2	-0.00119	0.00009	0.00043
Mean	-0.00132	-0.00043	0.00144
%RSD	13.36654	170.48259	99.77818

Method : Paragon

File : 111118A

Printed : 11/21/2011 12:55:28

SampleId1 : 1111037-3L 5X

SampleId2 :

[SAMPLE]

Analysis commenced : 11/18/2011 15:17:19

Dilution ratio : 1.00000 to 1.00000 Tray :

Position : TUBE8

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00071	0.27380	-0.00653	-0.00408	0.03091	-0.00059	0.00414	23.54603	-0.00084
#2	-0.00046	0.27282	-0.00084	-0.00256	0.03061	-0.00061	-0.00209	23.68972	-0.00080
Mean	-0.00058	0.27331	-0.00369	-0.00332	0.03076	-0.00060	0.00102	23.61788	-0.00082
%RSD	30.46195	0.25421	109.10694	32.51447	0.67040	2.42283	430.24326	0.43022	3.23744

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00091	-0.00142	-0.00121	-0.01208	-0.09972	-0.00037	2.08920	-0.00076	-0.00067
#2	-0.00063	-0.00105	-0.00076	-0.01244	-0.08300	-0.00034	2.09323	-0.00086	-0.00042
Mean	-0.00077	-0.00123	-0.00099	-0.01226	-0.09136	-0.00035	2.09121	-0.00081	-0.00055
%RSD	25.13213	21.14550	32.38132	2.05698	12.93894	7.17797	0.13638	8.02261	31.71595

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	1.09689	-0.00076	-0.00818	-0.00493	-0.00337	1.32987	-0.00231	0.00395	-0.00527
#2	1.09041	-0.00063	-0.00613	0.00098	-0.00016	1.32034	-0.00170	-0.00071	-0.00331
Mean	1.09365	-0.00069	-0.00716	-0.00197	-0.00177	1.32510	-0.00201	0.00162	-0.00429
%RSD	0.41916	13.56393	20.22685	211.81852	128.39553	0.50848	21.51326	203.62144	32.29483

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	1.98936	0.00207	0.03309	-0.00888	-0.00302	0.00492	-0.04324	-0.00108	-0.00058
#2	1.98884	0.00125	0.03300	-0.00440	-0.00262	0.00247	-0.02882	-0.00067	-0.00025
Mean	1.98910	0.00166	0.03305	-0.00664	-0.00282	0.00369	-0.03603	-0.00087	-0.00042
%RSD	0.01876	34.97159	0.17325	47.77945	9.96960	46.77272	28.29263	33.14306	55.83117

	Zr ppm	Pb calc	SeUNDGREEN calc
#1	-0.00048	-0.00389	-0.00220
#2	-0.00045	0.00022	-0.00244
Mean	-0.00047	-0.00184	-0.00232
%RSD	4.55196	158.26322	7.43089

Method : Paragon File : 111118A
 SampleId1 : 1111037-3MS SampleId2 :
 Analysis commenced : 11/18/2011 15:19:07
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:28
 [SAMPLE]

Position : TUBE9

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	0.08951	2.10828	1.99462	0.51966	2.16798	0.04746	0.00140	156.91243	0.04599
#2	0.08883	2.08419	1.98206	0.51652	2.16302	0.04729	0.00019	156.56034	0.04661
Mean	0.08917	2.09624	1.98834	0.51809	2.16550	0.04737	0.00080	156.73639	0.04630
%RSD	0.53655	0.81237	0.44698	0.42771	0.16187	0.24377	107.92840	0.15884	0.94978

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.46444	0.18536	0.25496	0.96632	40.22151	0.55107	48.43152	0.48085	0.95027
#2	0.46367	0.18606	0.25478	0.96440	39.86914	0.54680	48.26148	0.48057	0.95323
Mean	0.46406	0.18571	0.25487	0.96536	40.04533	0.54894	48.34650	0.48071	0.95175
%RSD	0.11693	0.26402	0.05031	0.14041	0.62221	0.54909	0.24871	0.04085	0.22029

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	46.74058	0.45399	0.01730	0.49066	0.49717	6.63712	0.48176	2.14066	2.13851
#2	46.35419	0.45593	0.02139	0.48768	0.49687	6.70414	0.47584	2.11820	2.14007
Mean	46.54739	0.45496	0.01935	0.48917	0.49702	6.67063	0.47880	2.12943	2.13929
%RSD	0.58695	0.30095	14.96821	0.43160	0.04218	0.71039	0.87513	0.74581	0.05178

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	11.65853	0.51046	0.66716	-0.03320	0.48213	2.08153	-0.04322	0.47762	0.45793
#2	11.61303	0.50225	0.66540	-0.03498	0.48217	2.09274	-0.04803	0.47585	0.45428
Mean	11.63578	0.50636	0.66628	-0.03409	0.48215	2.08714	-0.04562	0.47673	0.45611
%RSD	0.27649	1.14682	0.18656	3.69133	0.00584	0.37977	7.44622	0.26196	0.56538

	Zr ppm	Pb calc	Se calc
#1	-0.00051	0.49500	2.13923
#2	-0.00032	0.49381	2.13279
Mean	-0.00042	0.49441	2.13601
%RSD	31.88387	0.17048	0.21300

Method : Paragon File : 111118A

Printed : 11/21/2011 12:55:29

SampleId1 : 1111037-3MSD SampleId2 :
 Analysis commenced : 11/18/2011 15:20:56
 Dilution ratio : 1.00000 to 1.00000 Tray :

[SAMPLE]
 Position : TUBE10

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	0.08899	2.12574	1.97805	0.51721	2.16806	0.04742	-0.00084	156.62139	0.04612
#2	0.08873	2.11774	1.98997	0.51507	2.16405	0.04741	-0.00189	156.37649	0.04688
Mean	0.08886	2.12174	1.98401	0.51614	2.16606	0.04741	-0.00137	156.49894	0.04650
%RSD	0.20492	0.26643	0.42476	0.29319	0.13114	0.01747	54.24239	0.11065	1.15614

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.46527	0.18593	0.25727	0.96871	40.08522	0.54862	48.26839	0.47937	0.94648
#2	0.46375	0.18619	0.25598	0.96560	39.87019	0.54617	48.12508	0.47872	0.94895
Mean	0.46451	0.18606	0.25663	0.96716	39.97771	0.54740	48.19674	0.47904	0.94771
%RSD	0.23146	0.09659	0.35579	0.22775	0.38033	0.31709	0.21025	0.09564	0.18435

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	46.71661	0.45750	0.01798	0.49129	0.49588	6.62436	0.48222	2.13091	2.16132
#2	46.51457	0.45860	0.01753	0.49315	0.49709	6.59245	0.48224	2.13642	2.16236
Mean	46.61559	0.45805	0.01775	0.49222	0.49649	6.60840	0.48223	2.13367	2.16184
%RSD	0.30648	0.17008	1.81231	0.26678	0.17234	0.34145	0.00269	0.18273	0.03416

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	11.66058	0.50964	0.67216	-0.03737	0.48233	2.08832	-0.04597	0.47635	0.45959
#2	11.63527	0.50677	0.67076	-0.03504	0.47953	2.08071	-0.05146	0.47626	0.45627
Mean	11.64792	0.50821	0.67146	-0.03620	0.48093	2.08451	-0.04871	0.47630	0.45793
%RSD	0.15365	0.39947	0.14811	4.55044	0.41272	0.25838	7.96914	0.01228	0.51194

	Zr ppm	Pb calc	Se calc
#1	-0.00040	0.49435	2.15119
#2	-0.00038	0.49578	2.15372
Mean	-0.00039	0.49507	2.15246
%RSD	4.97078	0.20361	0.08320

Method : Paragon File : 111118A
 SampleId1 : CCV SampleId2 :
 Analysis commenced : 11/18/2011 15:23:38
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:29
 [CV]
 Position : STD6

Final concentrations

Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
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#1	0.19890	53.53644	0.50981	1.03004	1.05098	0.48495	0.53574	48.46249	0.49832
#2	0.19843	53.66512	0.51321	1.02399	1.05515	0.48397	0.52467	48.37760	0.49814
Mean	0.19866	53.60078	0.51151	1.02702	1.05306	0.48446	0.53020	48.42004	0.49823
%RSD	0.16883	0.16976	0.46935	0.41654	0.28039	0.14211	1.47642	0.12396	0.02528

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.48931	0.98439	1.05844	20.51737	49.98756	0.54356	51.10610	0.99695	0.99252
#2	0.48620	0.98211	1.06260	20.49293	50.16799	0.54538	51.05671	0.99630	0.98981
Mean	0.48775	0.98325	1.06052	20.50515	50.07778	0.54447	51.08141	0.99663	0.99117
%RSD	0.45016	0.16362	0.27767	0.08430	0.25478	0.23715	0.06837	0.04631	0.19395

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	49.57360	0.96181	5.15363	1.00961	1.02718	5.33588	0.50284	1.06603	1.05998
#2	49.72131	0.96492	5.16182	1.00130	1.02584	5.38688	0.50755	1.06629	1.06299
Mean	49.64745	0.96336	5.15773	1.00546	1.02651	5.36138	0.50520	1.06616	1.06148
%RSD	0.21037	0.22852	0.11235	0.58470	0.09205	0.67265	0.65920	0.01751	0.20043

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	5.15822	1.05193	0.51948	0.31171	0.50466	0.54387	5.11829	0.49015	0.95208
#2	5.16736	1.04822	0.52078	0.31101	0.50446	0.54642	5.12657	0.48904	0.95075
Mean	5.16279	1.05008	0.52013	0.31136	0.50456	0.54515	5.12243	0.48960	0.95142
%RSD	0.12520	0.24948	0.17632	0.16027	0.02790	0.33117	0.11418	0.16083	0.09902

	Zr ppm	Pb calc	Se calc
#1	1.00001	1.02133	1.06199
#2	0.99934	1.01767	1.06409
Mean	0.99967	1.01950	1.06304
%RSD	0.04796	0.25385	0.13934

Method : Paragon

File : 111118A

Printed : 11/21/2011 12:55:29

SampleId1 : CCB

SampleId2 :

[CB]

Analysis commenced : 11/18/2011 15:25:32

Dilution ratio : 1.00000 to 1.00000 Tray :

Position : STD2

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00020	0.00273	-0.00284	-0.00561	-0.00088	-0.00006	-0.00365	-0.05742	-0.00050
#2	-0.00015	0.00044	-0.00095	-0.00530	-0.00083	-0.00013	-0.00209	-0.05742	-0.00074
Mean	-0.00017	0.00159	-0.00190	-0.00545	-0.00086	-0.00009	-0.00287	-0.05742	-0.00062
%RSD	21.47758	102.50467	70.72464	3.95610	3.44337	53.16623	38.40121	0.00000	27.60963

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00095	-0.00077	-0.00067	-0.00471	-0.25540	-0.00184	-0.03408	-0.00058	-0.00010

#2	-0.00026	-0.00052	-0.00076	-0.00495	-0.24168	-0.00183	-0.03498	-0.00058	-0.00157
Mean	-0.00061	-0.00064	-0.00071	-0.00483	-0.24854	-0.00184	-0.03453	-0.00058	-0.00083
%RSD	79.88051	27.70365	9.17277	3.48125	3.90355	0.41595	1.83309	0.00000	124.92451

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	-0.16735	-0.00196	-0.00272	-0.00079	-0.00164	-0.03512	-0.00501	0.00358	-0.00212
#2	-0.16762	-0.00139	-0.00500	-0.00120	-0.00199	-0.03512	-0.00184	-0.00917	-0.00195
Mean	-0.16748	-0.00168	-0.00386	-0.00100	-0.00182	-0.03512	-0.00342	-0.00279	-0.00203
%RSD	0.11660	23.87321	41.68653	29.82584	13.41876	0.00000	65.44623	322.46224	5.93178

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	-0.01245	0.00002	-0.00168	-0.00472	-0.00299	-0.00130	-0.02952	-0.00038	-0.00124
#2	-0.01195	-0.00367	-0.00170	-0.00280	-0.00272	-0.00151	-0.02952	-0.00013	-0.00091
Mean	-0.01220	-0.00182	-0.00169	-0.00376	-0.00285	-0.00141	-0.02952	-0.00026	-0.00108
%RSD	2.89019	142.90334	0.96557	36.27076	6.64747	10.27805	0.00039	67.37263	21.64708

	Zr ppm	Pb calc	Se calc
#1	0.00074	-0.00136	-0.00022
#2	0.00061	-0.00173	-0.00435
Mean	0.00068	-0.00154	-0.00228
%RSD	14.27053	16.94208	127.81165

Method : Paragon File : 111118A
 SampleId1 : 1111040-1 10X SampleId2 :
 Analysis commenced : 11/18/2011 15:27:27
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:29

[SAMPLE]

Position : TUBE11

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00072	-0.04007	-0.00116	3.08342	3.21598	-0.00031	0.00518	656.73541	-0.00105
#2	0.00005	-0.03691	0.00053	3.06914	3.18099	-0.00028	0.00606	667.27273	-0.00025
Mean	-0.00034	-0.03849	-0.00032	3.07628	3.19849	-0.00030	0.00562	662.00407	-0.00065
%RSD	162.17971	5.80455	377.60000	0.32817	0.77344	7.40400	10.98978	1.12552	85.99068

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.00362	0.00247	-0.00140	34.39427	77.58273	2.36890	50.29300	0.61130	0.00318
#2	0.00454	0.00327	-0.00077	34.60448	76.14067	2.32685	50.26393	0.61520	0.00522
Mean	0.00408	0.00287	-0.00109	34.49938	76.86170	2.34788	50.27847	0.61325	0.00420
%RSD	15.82663	19.89842	41.35666	0.43087	1.32666	1.26643	0.04088	0.44913	34.45211

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	386.69836	0.00760	0.03846	0.00051	0.00298	3.40589	-0.00342	-0.00211	0.00204
#2	395.59459	0.00930	-0.04480	0.00926	-0.00035	3.41862	-0.00011	0.00229	-0.00379

Mean	391.14647	0.00845	-0.00317	0.00488	0.00131	3.41225	-0.00176	0.00009	-0.00088
%RSD	1.60824	14.21787	1856.46696	126.57313	178.92988	0.26377	132.89683	3399.03612	470.27654
	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	2.02748	-0.00121	37.86521	-0.02784	-0.00518	0.00090	-0.03166	-0.00390	0.02715
#2	2.01784	0.00780	38.08209	-0.01294	-0.00484	0.00416	-0.01669	-0.00292	0.02616
Mean	2.02266	0.00330	37.97365	-0.02039	-0.00501	0.00253	-0.02418	-0.00341	0.02665
%RSD	0.33700	193.17920	0.40387	51.67057	4.77293	91.30555	43.75944	20.37218	2.62789
	Zr	Pb	Se						
	ppm	calc	calc						
#1	0.00176	0.00216	0.00066						
#2	0.00139	0.00285	-0.00177						
Mean	0.00158	0.00250	-0.00055						
%RSD	16.55478	19.62785	309.21426						

Method : Paragon File : 111118A
SampleId1 : 1111040-3 10X SampleId2 :
Analysis commenced : 11/18/2011 15:29:19
Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:29

[SAMPLE]

Position : TUBE12

Final concentrations

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00055	-0.04736	0.00706	4.88821	2.40155	-0.00044	-0.00159	1031.84481	-0.00043
#2	-0.00070	-0.05242	0.00432	4.85364	2.37944	-0.00050	-0.00246	1028.81430	-0.00095
Mean	-0.00062	-0.04989	0.00569	4.87093	2.39049	-0.00047	-0.00203	1030.32955	-0.00069
%RSD	17.48150	7.16387	34.04487	0.50188	0.65398	8.91212	30.18398	0.20798	52.78631
	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	0.00077	-0.00087	-0.00221	8.54125	120.56792	3.86834	82.61393	0.40933	-0.00034
#2	0.00143	-0.00050	-0.00203	8.49835	119.43701	3.83235	82.09371	0.40794	-0.00173
Mean	0.00110	-0.00069	-0.00212	8.51980	120.00246	3.85035	82.35382	0.40864	-0.00104
%RSD	42.26012	38.78472	6.16382	0.35607	0.66638	0.66100	0.44667	0.24002	94.73781
	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	349.90985	-0.00119	-0.38312	-0.00139	-0.00325	6.62436	-0.00158	-0.00893	0.00123
#2	351.78405	-0.00119	-0.44280	-0.00145	-0.00432	6.57968	-0.00356	0.00470	-0.00269
Mean	350.84695	-0.00119	-0.41296	-0.00142	-0.00378	6.60202	-0.00257	-0.00212	-0.00073
%RSD	0.37773	0.00000	10.22023	3.29581	20.06977	0.47848	54.38925	454.81897	380.76489
	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	1.63705	-0.00079	46.81118	-0.04097	-0.00763	0.00405	-0.06142	-0.00171	0.09915
#2	1.62426	-0.00325	46.77217	-0.03743	-0.00714	0.00209	-0.06139	-0.00172	0.10114
Mean	1.63065	-0.00202	46.79168	-0.03920	-0.00739	0.00307	-0.06141	-0.00171	0.10014

%RSD	0.55461	85.88836	0.05895	6.37837	4.66196	45.10790	0.03364	0.34309	1.39980
	Zr	Pb	Se						
	ppm	calc	calc						
#1	0.00194	-0.00263	-0.00215						
#2	0.00140	-0.00337	-0.00023						
Mean	0.00167	-0.00300	-0.00119						
%RSD	22.92270	17.42190	113.86697						

Method : Paragon File : 111118A
SampleId1 : 1111040-4 10X SampleId2 :
Analysis commenced : 11/18/2011 15:31:34
Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:30
[SAMPLE]

Position : TUBE13

Final concentrations

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00081	1.41122	0.00053	4.19730	19.57916	-0.00043	0.00309	1047.63959	-0.00127
#2	-0.00112	1.40478	0.00116	4.18040	19.49526	-0.00043	0.00170	1039.27904	-0.00097
Mean	-0.00096	1.40800	0.00084	4.18885	19.53721	-0.00043	0.00239	1043.45932	-0.00112
%RSD	22.98863	0.32344	53.00850	0.28518	0.30365	0.37688	41.06399	0.56656	19.08014

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	0.00975	-0.00156	-0.00264	11.55738	147.93497	4.86302	83.81472	0.35128	-0.00263
#2	0.01005	-0.00106	-0.00328	11.49849	147.29425	4.84865	83.45355	0.34916	-0.00223
Mean	0.00990	-0.00131	-0.00296	11.52794	147.61461	4.85583	83.63414	0.35022	-0.00243
%RSD	2.11047	27.01518	15.20615	0.36122	0.30692	0.20924	0.30536	0.42905	11.90868

	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	350.51327	-0.00110	-0.74886	-0.00332	-0.00350	0.52020	-0.00171	-0.00008	-0.00003
#2	352.39391	-0.00177	-0.83763	-0.00376	-0.00303	0.54559	-0.00564	-0.00966	-0.00447
Mean	351.45359	-0.00144	-0.79325	-0.00354	-0.00327	0.53289	-0.00368	-0.00487	-0.00225
%RSD	0.37838	33.40663	7.91289	8.70027	10.25134	3.36939	75.42782	139.11469	139.60156

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	0.55415	-0.00202	52.38066	-0.03966	-0.00721	0.00090	-0.06142	-0.00170	0.04414
#2	0.54960	-0.00366	52.35818	-0.04220	-0.00730	0.01058	-0.06138	-0.00228	0.04145
Mean	0.55187	-0.00284	52.36942	-0.04093	-0.00726	0.00574	-0.06140	-0.00199	0.04279
%RSD	0.58260	40.74551	0.03035	4.38541	0.87152	119.25442	0.04618	20.75558	4.44457

	Zr	Pb	Se
	ppm	calc	calc
#1	0.00187	-0.00344	-0.00005
#2	0.00203	-0.00327	-0.00620
Mean	0.00195	-0.00336	-0.00312
%RSD	5.90983	3.59718	139.34867

ted: 11/21/2011 12:56:06 User: MIKE LUNDGREEN
 Method : Paragon File : 111118A
 SampleId1 : 1111040-5 10X SampleId2 :
 Analysis commenced : 11/18/2011 15:33:23
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:30
 [SAMPLE]

Position : TUBE14

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00091	2.20977	0.00284	4.45145	11.20176	-0.00051	-0.00385	959.14132	-0.00079
#2	-0.00065	2.17894	-0.00063	4.40142	11.08594	-0.00053	-0.00454	941.58010	-0.00158
Mean	-0.00078	2.19436	0.00111	4.42644	11.14385	-0.00052	-0.00420	950.36071	-0.00119
%RSD	23.67798	0.99357	222.15173	0.79918	0.73487	2.23858	11.66892	1.30663	47.58132

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.00538	-0.00106	-0.00300	8.90713	135.52612	4.20114	75.66217	0.34971	-0.00198
#2	0.00543	-0.00115	-0.00282	8.79563	133.95411	4.16082	74.71628	0.34565	-0.00059
Mean	0.00541	-0.00111	-0.00291	8.85138	134.74012	4.18098	75.18923	0.34768	-0.00128
%RSD	0.57991	6.07024	4.39479	0.89071	0.82498	0.68189	0.88955	0.82676	76.62167

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	357.98559	-0.00211	-0.77740	-0.00176	-0.00190	0.92337	-0.00355	-0.00003	-0.00116
#2	357.31251	-0.00086	-0.85913	-0.00370	-0.00246	0.92655	-0.00660	-0.01011	-0.00485
Mean	357.64905	-0.00149	-0.81827	-0.00273	-0.00218	0.92496	-0.00508	-0.00507	-0.00300
%RSD	0.13307	59.68737	7.06326	50.34405	18.08044	0.24273	42.46845	140.65300	86.73473

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	0.40180	-0.00039	49.75732	-0.04042	-0.00664	-0.00271	-0.07060	-0.00148	0.21239
#2	0.39498	-0.00284	49.48709	-0.04105	-0.00668	0.00454	-0.06915	-0.00191	0.20868
Mean	0.39839	-0.00162	49.62221	-0.04073	-0.00666	0.00092	-0.06987	-0.00169	0.21053
%RSD	1.21009	107.59946	0.38506	1.10001	0.42234	560.23420	1.46635	18.01291	1.24412

	Zr ppm	Pb calc	Se calc
#1	0.00189	-0.00186	-0.00078
#2	0.00188	-0.00287	-0.00660
Mean	0.00189	-0.00237	-0.00369
%RSD	0.41280	30.47785	111.38055

Method : Paragon File : 111118A
 SampleId1 : 1111040-7 10X SampleId2 :
 Analysis commenced : 11/18/2011 15:35:20
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:30
 [SAMPLE]

Position : TUBE15

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00056	-0.03135	0.00158	3.12957	2.95921	-0.00038	-0.00002	673.17484	-0.00095
#2	-0.00087	-0.04043	0.00032	3.09167	2.93631	-0.00042	0.00102	666.49407	-0.00106
Mean	-0.00071	-0.03589	0.00095	3.11062	2.94776	-0.00040	0.00050	669.83446	-0.00100
%RSD	31.18210	17.89942	94.24208	0.86149	0.54927	7.24459	148.16813	0.70525	7.47180

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.00285	0.00222	-0.00101	35.07763	77.98510	2.31990	51.34337	0.62605	0.00375
#2	0.00282	0.00250	-0.00065	34.76133	77.30033	2.29979	50.84626	0.62132	0.00580
Mean	0.00284	0.00236	-0.00083	34.91948	77.64272	2.30985	51.09481	0.62369	0.00477
%RSD	0.80634	8.37472	30.52427	0.64048	0.62364	0.61560	0.68796	0.53633	30.31637

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	396.93842	0.00813	-0.10529	0.00029	0.00169	3.38043	-0.00317	-0.00309	0.00192
#2	395.42970	0.00908	-0.13984	-0.00347	0.00319	3.36134	-0.00181	-0.01036	0.00484
Mean	396.18406	0.00860	-0.12256	-0.00159	0.00244	3.37088	-0.00249	-0.00673	0.00338
%RSD	0.26927	7.80529	19.93517	167.47462	43.68567	0.40049	38.68367	76.50482	60.99604

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	2.05525	0.00248	37.78712	-0.03185	-0.00547	-0.00054	-0.04860	-0.00413	0.02666
#2	2.03385	0.00207	37.59020	-0.03166	-0.00533	-0.00247	-0.04426	-0.00419	0.02867
Mean	2.04455	0.00227	37.68866	-0.03176	-0.00540	-0.00150	-0.04643	-0.00416	0.02766
%RSD	0.74022	12.73767	0.36946	0.41929	1.82074	90.92963	6.60130	1.04117	5.15570

	Zr ppm	Pb calc	Se calc
#1	0.00186	0.00122	0.00025
#2	0.00148	0.00097	-0.00022
Mean	0.00167	0.00110	0.00002
%RSD	16.00094	15.94456	2102.91789

Method : Paragon File : 111118A
 SampleId1 : 1111051-1 10X SampleId2 :
 Analysis commenced : 11/18/2011 15:37:08
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:30

[SAMPLE]

Position : TUBE16

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	0.00007	1.11579	-0.00010	4.11757	12.29808	-0.00066	0.00257	910.25891	-0.00088
#2	-0.00095	1.09726	-0.00042	4.11129	12.25971	-0.00068	-0.00038	898.46656	-0.00126
Mean	-0.00044	1.10653	-0.00026	4.11443	12.27889	-0.00067	0.00109	904.36273	-0.00107
%RSD	164.55654	1.18388	84.97991	0.10785	0.22099	2.12083	191.06570	0.92202	25.08412

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
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	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	0.00575	-0.00053	-0.00256	5.86605	128.29951	3.93346	69.33942	0.25018	-0.00149
#2	0.00542	-0.00109	-0.00263	5.82295	128.03000	3.93109	68.94670	0.24862	-0.00255
Mean	0.00558	-0.00081	-0.00259	5.84450	128.16476	3.93227	69.14306	0.24940	-0.00202
%RSD	4.17104	48.32558	2.04309	0.52146	0.14869	0.04262	0.40163	0.44467	37.23327

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	370.70294	0.00151	-0.77649	-0.00265	-0.00155	0.32342	-0.00172	-0.00508	-0.00161
#2	367.69286	0.00345	-0.87294	0.00023	-0.00196	0.30121	-0.00209	0.00046	-0.00289
Mean	369.19790	0.00248	-0.82472	-0.00121	-0.00175	0.31232	-0.00190	-0.00231	-0.00225
%RSD	0.57651	55.08686	8.26954	168.87764	16.60634	5.02943	13.78620	169.44047	40.40773

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	0.08947	0.00002	50.79279	-0.04647	-0.00670	0.00521	-0.05411	-0.00116	0.06768
#2	0.08836	-0.00284	50.40677	-0.04177	-0.00648	0.00298	-0.07468	-0.00138	0.06768
Mean	0.08891	-0.00141	50.59978	-0.04412	-0.00659	0.00410	-0.06439	-0.00127	0.06768
%RSD	0.88263	143.77075	0.53945	7.52657	2.34738	38.48391	22.58439	11.84093	0.00000

	Zr ppm	Pb calc	Se calc
#1	0.00228	-0.00191	-0.00276
#2	0.00164	-0.00123	-0.00178
Mean	0.00196	-0.00157	-0.00227
%RSD	23.15473	30.80119	30.72669

Method : Paragon File : 111118A
 SampleId1 : 1111051-2 10X SampleId2 :
 Analysis commenced : 11/18/2011 15:38:57
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:30
 [SAMPLE]
 Position : TUBE17

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00106	1.24285	0.00063	4.46410	13.22413	-0.00064	0.00430	994.45787	-0.00171
#2	-0.00138	1.22281	0.00316	4.37033	12.97823	-0.00068	0.00395	982.64970	-0.00090
Mean	-0.00122	1.23283	0.00190	4.41721	13.10118	-0.00066	0.00413	988.55378	-0.00131
%RSD	18.40708	1.14929	94.26204	1.50107	1.32719	4.27742	5.91327	0.84463	43.55781

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.00567	-0.00134	-0.00263	6.15331	137.29138	4.18730	75.04338	0.26864	-0.00124
#2	0.00587	-0.00156	-0.00273	6.06184	134.54438	4.10912	73.80224	0.26550	-0.00223
Mean	0.00577	-0.00145	-0.00268	6.10758	135.91788	4.14821	74.42281	0.26707	-0.00173
%RSD	2.52539	10.89514	2.55302	1.05894	1.42912	1.33262	1.17924	0.83072	40.04645

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
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#1	363.29902	-0.00232	-0.90418	-0.00057	-0.00191	0.33929	-0.00122	-0.00349	-0.00530
#2	369.09171	-0.00123	-0.98563	-0.00272	-0.00184	0.32342	-0.00355	-0.00423	-0.00438
Mean	366.19536	-0.00177	-0.94490	-0.00165	-0.00188	0.33136	-0.00238	-0.00386	-0.00484
%RSD	1.11854	43.23706	6.09523	92.24953	2.96906	3.38608	69.24797	13.55937	13.42228

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	0.10515	-0.00448	51.71203	-0.03706	-0.00642	-0.00007	-0.07147	-0.00127	0.07205
#2	0.10160	0.00166	51.64265	-0.03292	-0.00644	0.00709	-0.06385	-0.00178	0.07474
Mean	0.10337	-0.00141	51.67734	-0.03499	-0.00643	0.00351	-0.06766	-0.00153	0.07339
%RSD	2.42883	308.01749	0.09494	8.37624	0.21868	144.42223	7.95724	23.55041	2.59219

	Zr	Pb	Se
	ppm	calc	calc
#1	0.00138	-0.00147	-0.00470
#2	0.00109	-0.00213	-0.00433
Mean	0.00123	-0.00180	-0.00451
%RSD	16.67409	26.04551	5.73710

Method : Paragon File : 111118A
SampleId1 : 1111059-9 SampleId2 :
Analysis commenced : 11/18/2011 15:42:26
Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:31
[SAMPLE]
Position : TUBE18

Final concentrations

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00076	-0.03747	-0.00190	-0.00103	-0.00038	-0.00039	-0.00036	-0.04389	-0.00091
#2	-0.00030	-0.02704	0.00369	-0.00156	-0.00038	-0.00037	-0.00383	-0.04331	-0.00077
Mean	-0.00053	-0.03226	0.00090	-0.00130	-0.00038	-0.00038	-0.00210	-0.04360	-0.00084
%RSD	60.75384	22.85257	440.68253	29.12527	0.00000	2.52169	116.89762	0.93384	11.25376

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm								
#1	-0.00013	-0.00145	-0.00130	-0.00352	-0.24093	-0.00151	-0.06899	-0.00104	-0.00206
#2	-0.00033	-0.00042	-0.00103	-0.00328	-0.24443	-0.00151	-0.05914	-0.00095	-0.00100
Mean	-0.00023	-0.00094	-0.00116	-0.00340	-0.24268	-0.00151	-0.06407	-0.00099	-0.00153
%RSD	63.73089	77.61113	16.03777	4.94078	1.01764	0.16461	10.86709	6.53884	49.18723

	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	0.02122	-0.00157	-0.04753	-0.00405	-0.00259	-0.03512	-0.00379	-0.00942	-0.00229
#2	0.01597	0.00012	-0.04503	0.00183	-0.00440	-0.03195	-0.00355	0.00396	-0.00654
Mean	0.01859	-0.00072	-0.04628	-0.00111	-0.00349	-0.03354	-0.00367	-0.00273	-0.00442
%RSD	19.98883	165.72953	3.82240	375.02689	36.67172	6.68913	4.68569	346.31246	68.21386

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.01636	-0.00203	0.00365	0.00220	-0.00294	0.00623	-0.03638	-0.00067	0.00077

#2	-0.01587	-0.00940	0.00361	-0.00310	-0.00269	0.00314	-0.02540	-0.00071	0.00111
Mean	-0.01612	-0.00572	0.00363	-0.00045	-0.00281	0.00469	-0.03089	-0.00069	0.00094
%RSD	2.16079	91.21743	0.67552	837.87189	6.24200	46.68620	25.14452	4.20689	25.24731

	Zr ppm	Pb calc	Se calc
#1	-0.00059	-0.00308	-0.00466
#2	0.00014	-0.00232	-0.00305
Mean	-0.00023	-0.00270	-0.00385
%RSD	228.68871	19.70853	29.63242

Method : Paragon File : 111118A
 SampleId1 : 1111059-10 SampleId2 :
 Analysis commenced : 11/18/2011 15:44:24
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:31

[SAMPLE]

Position : TUBE19

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	0.00007	-0.02874	-0.00200	-0.00393	-0.00133	-0.00029	-0.00383	-0.08103	-0.00127
#2	-0.00074	-0.02176	-0.00126	-0.00423	-0.00125	-0.00031	-0.00505	-0.06922	-0.00106
Mean	-0.00034	-0.02525	-0.00163	-0.00408	-0.00129	-0.00030	-0.00444	-0.07512	-0.00117
%RSD	170.49384	19.56512	31.94120	5.28727	4.55677	4.55895	19.47962	11.10984	12.43069

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00068	-0.00104	-0.00102	-0.01601	-0.25341	-0.00167	-0.06854	-0.00113	-0.00263
#2	-0.00137	-0.00209	-0.00182	-0.01613	-0.26488	-0.00166	-0.07212	-0.00113	-0.00329
Mean	-0.00102	-0.00157	-0.00142	-0.01607	-0.25914	-0.00166	-0.07033	-0.00113	-0.00296
%RSD	47.60736	47.32456	39.54503	0.52327	3.13117	0.44889	3.59962	0.00000	15.63149

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	-0.10569	-0.00201	-0.02661	-0.00072	0.00206	-0.03195	-0.00233	-0.00412	0.00112
#2	-0.06893	-0.00225	-0.02843	-0.00492	0.00347	-0.02560	-0.00625	-0.00200	-0.00152
Mean	-0.08731	-0.00213	-0.02752	-0.00282	0.00276	-0.02878	-0.00429	-0.00306	-0.00020
%RSD	29.77003	7.87756	4.67617	105.41362	35.85296	15.59061	64.51109	48.93918	929.89530

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	-0.01485	0.00125	-0.00161	-0.00434	-0.00301	0.00143	-0.03706	-0.00095	0.00245
#2	-0.02011	0.00084	0.00014	0.00172	-0.00303	-0.00029	-0.06727	-0.00173	0.00145
Mean	-0.01748	0.00104	-0.00073	-0.00131	-0.00302	0.00057	-0.05216	-0.00134	0.00195
%RSD	21.27640	27.76350	169.36322	326.30514	0.46565	213.77350	40.94737	40.89993	36.57017

	Zr ppm	Pb calc	Se calc
#1	0.00006	0.00114	-0.00063
#2	-0.00129	0.00067	-0.00168

Mean -0.00061 0.00091 -0.00115UNDGREEN
 %RSD 155.48084 36.21621 64.63738

Method : Paragon File : 111118A
 SampleId1 : 1111078-2 SampleId2 :
 Analysis commenced : 11/18/2011 15:46:13
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:31
 [SAMPLE]
 Position : TUBE20

Final concentrations

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00066	0.20599	-0.00010	0.00408	0.12115	-0.00015	0.00138	34.09231	-0.00052
#2	0.00038	0.21121	-0.00242	0.00423	0.12124	-0.00018	0.00173	34.11057	-0.00062
Mean	-0.00014	0.20860	-0.00126	0.00416	0.12119	-0.00016	0.00156	34.10144	-0.00057
%RSD	531.95590	1.77227	129.67649	2.59465	0.04867	13.87049	15.92446	0.03786	12.30709

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00031	0.00093	-0.00121	0.11462	0.77734	0.00234	4.47198	0.11258	-0.00206
#2	-0.00031	0.00105	-0.00058	0.11438	0.77560	0.00235	4.46704	0.11240	-0.00018
Mean	-0.00031	0.00099	-0.00089	0.11450	0.77647	0.00235	4.46951	0.11249	-0.00112
%RSD	0.24683	8.71898	50.01809	0.14702	0.15925	0.10610	0.07811	0.11576	118.81109

	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	4.97854	0.00548	0.06349	0.00070	-0.00136	3.84192	-0.00210	-0.00666	-0.00064
#2	4.96448	0.00572	0.07214	0.00117	-0.00110	3.89604	-0.00160	-0.00665	-0.00064
Mean	4.97151	0.00560	0.06781	0.00093	-0.00123	3.86898	-0.00185	-0.00666	-0.00064
%RSD	0.19994	2.99686	9.01741	35.11960	14.63600	0.98908	19.27445	0.05332	0.01555

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	9.77085	-0.00531	0.08267	-0.00180	0.00354	-0.00050	-0.03303	-0.00036	0.00178
#2	9.74636	-0.00449	0.08280	-0.01202	0.00412	0.00251	-0.02685	-0.00040	0.00178
Mean	9.75861	-0.00490	0.08274	-0.00691	0.00383	0.00101	-0.02994	-0.00038	0.00178
%RSD	0.17745	11.80219	0.10885	104.54362	10.64440	211.04012	14.59294	7.66907	0.00000

	Zr	Pb	Se
	ppm	calc	calc
#1	-0.00223	-0.00067	-0.00265
#2	-0.00129	-0.00035	-0.00264
Mean	-0.00176	-0.00051	-0.00265
%RSD	38.05812	45.08754	0.04215

Method : Paragon File : 111118A
 SampleId1 : CCV SampleId2 :
 Analysis commenced : 11/18/2011 15:48:42
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:31
 [CV]
 Position : STD6

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	0.19875	53.71811	0.51671	1.03563	1.05498	0.48537	0.54298	48.15844	0.50272
#2	0.19913	53.39334	0.51830	1.02660	1.05060	0.48503	0.53187	48.13637	0.49855
Mean	0.19894	53.55572	0.51751	1.03112	1.05279	0.48520	0.53743	48.14741	0.50064
%RSD	0.13737	0.42881	0.21748	0.61971	0.29463	0.04984	1.46104	0.03241	0.58930

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.48621	0.98051	1.05065	20.45292	50.19085	0.53317	51.01887	0.99378	0.99565
#2	0.48607	0.98096	1.04474	20.42397	49.90174	0.53027	50.90579	0.99248	0.99491
Mean	0.48614	0.98074	1.04769	20.43845	50.04629	0.53172	50.96233	0.99313	0.99528
%RSD	0.02072	0.03234	0.39892	0.10013	0.40849	0.38515	0.15689	0.09295	0.05268

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	49.10764	0.99035	5.12483	0.99889	1.02006	5.34544	0.50452	1.05164	1.04705
#2	48.85023	0.98531	5.09721	1.00601	1.02354	5.32313	0.49955	1.05927	1.05557
Mean	48.97894	0.98783	5.11102	1.00245	1.02180	5.33429	0.50203	1.05546	1.05131
%RSD	0.37162	0.36102	0.38215	0.50171	0.24083	0.29577	0.69968	0.51099	0.57296

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	5.14209	1.05276	0.51301	0.30816	0.50023	0.52389	5.10252	0.48850	0.96052
#2	5.12531	1.06140	0.51142	0.30798	0.49929	0.52598	5.08947	0.48755	0.96628
Mean	5.13370	1.05708	0.51222	0.30807	0.49976	0.52493	5.09599	0.48802	0.96340
%RSD	0.23117	0.57840	0.21933	0.04211	0.13240	0.28087	0.18109	0.13767	0.42308

	Zr ppm	Pb calc	Se calc
#1	1.00230	1.01301	1.04858
#2	0.99951	1.01770	1.05680
Mean	1.00091	1.01535	1.05269
%RSD	0.19725	0.32660	0.55227

Method : Paragon File : 111118A
 SampleId1 : CCB SampleId2 :
 Analysis commenced : 11/18/2011 15:50:39
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:31
 [CB]

Position : STD2

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00087	0.01579	-0.00221	-0.00423	-0.00088	0.00010	-0.00002	-0.06116	-0.00100
#2	-0.00072	0.01468	-0.00474	-0.00416	-0.00092	0.00008	-0.00106	-0.06001	-0.00072
Mean	-0.00080	0.01523	-0.00347	-0.00420	-0.00090	0.00009	-0.00054	-0.06059	-0.00086
%RSD	13.47730	5.15616	51.43064	1.28576	3.28348	16.85900	136.76378	1.34401	23.47104

ted: 11/21/2011 12:56:07 User: MIKE LUNDGREEN

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00116	-0.00111	-0.00148	-0.00531	-0.25665	-0.00161	-0.03721	-0.00058	0.00031
#2	-0.00054	-0.00102	-0.00148	-0.00471	-0.26563	-0.00161	-0.03587	-0.00058	0.00031
Mean	-0.00085	-0.00106	-0.00148	-0.00501	-0.26114	-0.00161	-0.03654	-0.00058	0.00031
%RSD	51.54031	5.92975	0.35678	8.39321	2.43175	0.15454	2.59809	0.00000	0.00000

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	-0.14265	-0.00150	-0.01592	-0.00261	0.00302	-0.03195	-0.00267	-0.00375	-0.00092
#2	-0.14426	-0.00062	-0.01682	0.00011	-0.00013	-0.04147	0.00039	0.00597	-0.00016
Mean	-0.14346	-0.00106	-0.01637	-0.00125	0.00144	-0.03671	-0.00114	0.00111	-0.00054
%RSD	0.78971	58.67499	3.93024	154.31503	153.84438	18.33307	189.16701	618.00956	100.47356

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	-0.01584	-0.00735	-0.00173	-0.00577	-0.00280	-0.00177	-0.03981	-0.00079	-0.00192
#2	-0.01459	-0.00121	-0.00169	-0.00132	-0.00283	-0.00707	-0.03020	-0.00079	-0.00091
Mean	-0.01522	-0.00428	-0.00171	-0.00355	-0.00281	-0.00442	-0.03501	-0.00079	-0.00141
%RSD	5.79820	101.46153	1.43367	88.77409	0.74904	84.74049	19.41279	0.01032	50.51616

	Zr ppm	Pb calc	Se calc
#1	0.00087	0.00114	-0.00186
#2	0.00040	-0.00005	0.00189
Mean	0.00063	0.00055	0.00001
%RSD	52.65768	153.48719	25090.43576

Method : Paragon File : 111118A
 SampleId1 : 1111078-8 SampleId2 :
 Analysis commenced : 11/18/2011 15:52:34
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:31
 [SAMPLE]
 Position : TUBE21

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00112	-0.01210	0.00253	0.00935	0.17844	-0.00002	0.00050	118.11448	-0.00094
#2	-0.00045	-0.01543	-0.00074	0.01011	0.17735	-0.00009	-0.00487	118.84496	-0.00063
Mean	-0.00078	-0.01376	0.00090	0.00973	0.17789	-0.00006	-0.00219	118.47972	-0.00078
%RSD	60.48917	17.14898	257.76857	5.54581	0.43133	83.50082	173.60937	0.43596	27.90596

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00049	-0.00145	-0.00156	0.09569	1.01045	0.00780	12.69211	0.00043	-0.00108
#2	-0.00050	-0.00101	-0.00111	0.09569	1.01120	0.00773	12.66414	0.00061	-0.00133
Mean	-0.00049	-0.00123	-0.00134	0.09569	1.01083	0.00777	12.67813	0.00052	-0.00120
%RSD	0.25326	24.89201	23.54148	0.00000	0.05244	0.64103	0.15598	24.87137	14.44201

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	7.14787	-0.00093	-0.00227	-0.00239	0.00130	6.63074	-0.00440	0.00052	-0.00056
#2	7.07724	-0.00099	-0.00704	-0.00063	0.00103	6.58606	-0.00355	0.00242	0.00114
Mean	7.11255	-0.00096	-0.00465	-0.00151	0.00117	6.60840	-0.00397	0.00147	0.00029
%RSD	0.70215	4.99136	72.56805	82.21389	16.31102	0.47802	15.14388	91.40740	415.00944

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	9.18319	0.00043	0.21660	-0.02245	-0.00370	0.00937	-0.05018	-0.00081	-0.00091
#2	9.16063	-0.00285	0.21522	-0.01720	-0.00359	-0.00233	-0.03782	-0.00040	-0.00225
Mean	9.17191	-0.00121	0.21591	-0.01983	-0.00364	0.00352	-0.04400	-0.00061	-0.00158
%RSD	0.17395	191.67109	0.45249	18.73000	2.31392	234.95687	19.85864	47.71373	60.18833

	Zr ppm	Pb calc	Se calc
#1	-0.00065	0.00007	-0.00020
#2	-0.00089	0.00048	0.00157
Mean	-0.00077	0.00028	0.00068
%RSD	22.04076	104.35200	183.04128

Method : Paragon

File : 111118A

Printed : 11/21/2011 12:55:32

SampleId1 : 1111078-14

SampleId2 :

[SAMPLE]

Analysis commenced : 11/18/2011 15:54:23

Dilution ratio : 1.00000 to 1.00000 Tray :

Position : TUBE22

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00132	-0.00907	0.00032	0.00957	0.17956	-0.00002	-0.00540	120.89849	-0.00071
#2	-0.00065	-0.01121	-0.00484	0.01034	0.17860	-0.00003	0.00241	120.65842	-0.00102
Mean	-0.00098	-0.01014	-0.00226	0.00996	0.17908	-0.00003	-0.00150	120.77846	-0.00087
%RSD	48.35373	14.91936	161.18343	5.41832	0.37903	27.57832	368.87116	0.14055	25.18562

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00077	-0.00128	-0.00119	-0.00994	1.03419	0.00788	12.84865	0.00025	-0.00239
#2	-0.00042	-0.00122	-0.00119	-0.00947	1.03144	0.00779	12.79496	0.00034	-0.00206
Mean	-0.00060	-0.00125	-0.00119	-0.00971	1.03282	0.00784	12.82180	0.00029	-0.00223
%RSD	40.61742	3.35042	0.28476	3.46511	0.18820	0.85781	0.29606	22.19331	10.40296

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	7.17203	-0.00174	0.00228	-0.00384	-0.00036	6.68818	-0.00355	-0.00275	-0.00161
#2	7.11069	-0.00001	0.00183	-0.00204	-0.00071	6.64350	-0.00306	-0.00035	-0.00339
Mean	7.14136	-0.00088	0.00206	-0.00294	-0.00054	6.66584	-0.00331	-0.00155	-0.00250
%RSD	0.60731	139.59743	15.64804	43.35486	45.83317	0.47393	10.52082	109.41219	50.60775

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
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	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	9.30246	-0.00776	0.21818	-0.01107	-0.00365	0.00362	-0.05766	-0.00132	0.00279
#2	9.25454	-0.00326	0.21709	-0.01489	-0.00350	-0.00248	-0.05148	-0.00034	0.00111
Mean	9.27850	-0.00551	0.21764	-0.01298	-0.00358	0.00057	-0.05457	-0.00083	0.00195
%RSD	0.36520	57.82013	0.35461	20.84551	3.14527	757.61220	8.00573	83.52752	60.95022

	Zr ppm	Pb calc	Se calc
#1	-0.00179	-0.00152	-0.00199
#2	-0.00122	-0.00115	-0.00238
Mean	-0.00151	-0.00134	-0.00218
%RSD	26.73309	19.42150	12.73234

Method : Paragon

File : 111118A

Printed : 11/21/2011 12:55:32

SampleId1 : 1111078-19

SampleId2 :

[SAMPLE]

Analysis commenced : 11/18/2011 15:56:12

Dilution ratio : 1.00000 to 1.00000 Tray :

Position : TUBE23

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00016	5.07161	0.00242	0.01064	0.10743	0.00003	-0.00422	60.05332	-0.00052
#2	-0.00094	5.07821	-0.00221	0.01018	0.10756	0.00001	0.00271	59.95341	-0.00083
Mean	-0.00055	5.07491	0.00011	0.01041	0.10749	0.00002	-0.00075	60.00337	-0.00067
%RSD	100.28812	0.09196	3098.51377	3.10810	0.08229	70.69668	649.10394	0.11775	32.82947

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.00080	0.00799	0.00097	3.83859	1.66669	0.00300	6.36213	0.78225	-0.00182
#2	0.00129	0.00795	0.00106	3.82145	1.66394	0.00299	6.37786	0.78225	-0.00010
Mean	0.00105	0.00797	0.00101	3.83002	1.66532	0.00300	6.36999	0.78225	-0.00096
%RSD	33.13599	0.30112	6.07244	0.31640	0.11682	0.24914	0.17458	0.00000	127.04156

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	3.15553	0.00477	0.15113	0.00127	0.00213	7.10631	-0.00426	-0.00760	-0.00134
#2	3.16464	0.00484	0.16365	-0.00055	0.00217	7.19571	-0.00216	0.00666	-0.00049
Mean	3.16009	0.00480	0.15739	0.00036	0.00215	7.15101	-0.00321	-0.00047	-0.00091
%RSD	0.20386	0.99828	5.62637	358.40212	1.27364	0.88392	46.22013	2152.35439	65.70314

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	16.63281	-0.00191	0.11016	-0.00623	0.24920	-0.00457	-0.03076	0.00544	0.01590
#2	16.61571	0.00014	0.11009	-0.00545	0.24510	0.00343	-0.02594	0.00506	0.01489
Mean	16.62426	-0.00089	0.11012	-0.00584	0.24715	-0.00057	-0.02835	0.00525	0.01539
%RSD	0.07273	163.78647	0.04463	9.42086	1.17253	994.56503	12.01515	5.00213	4.63196

	Zr ppm	Pb calc	Se calc
#1	-0.00179	-0.00152	-0.00199
#2	-0.00122	-0.00115	-0.00238
Mean	-0.00151	-0.00134	-0.00218
%RSD	26.73309	19.42150	12.73234

#1	0.00425	0.00184	-0.00342	UNDGREEN
#2	0.00338	0.00126	0.00189	
Mean	0.00382	0.00155	-0.00076	
%RSD	16.01239	26.44018	491.32485	

Method : Paragon File : 111118A
 SampleId1 : 1111078-35 SampleId2 :
 Analysis commenced : 11/18/2011 15:58:02
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:32
 [SAMPLE]
 Position : TUBE24

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00031	0.01164	0.00042	0.06092	0.14505	-0.00016	-0.00134	137.96248	-0.00090
#2	-0.00104	0.01630	-0.00232	0.06168	0.14535	-0.00016	-0.00220	137.19246	-0.00119
Mean	-0.00067	0.01397	-0.00095	0.06130	0.14520	-0.00016	-0.00177	137.57747	-0.00105
%RSD	76.61070	23.59552	204.36182	0.88013	0.14222	0.19870	34.62294	0.39577	19.37367

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00061	-0.00127	0.02214	0.49619	2.24466	0.00605	23.24081	0.38132	-0.00051
#2	-0.00020	-0.00137	0.02242	0.49487	2.24716	0.00607	23.28985	0.38067	-0.00280
Mean	-0.00040	-0.00132	0.02228	0.49553	2.24591	0.00606	23.26533	0.38099	-0.00165
%RSD	72.41405	5.08643	0.86206	0.18738	0.07880	0.28768	0.14902	0.12009	98.07043

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	6.87390	0.00602	-0.03002	0.00335	0.00591	12.69066	-0.00158	0.00592	0.00020
#2	6.90382	0.00440	-0.03161	0.00326	0.00548	12.69708	-0.00233	-0.01086	0.00216
Mean	6.88886	0.00521	-0.03081	0.00330	0.00569	12.69387	-0.00195	-0.00247	0.00118
%RSD	0.30718	22.08777	3.65364	1.98715	5.36933	0.03574	27.25631	480.49287	117.37378

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	4.18079	0.00084	0.30026	-0.02655	-0.00257	0.00412	-0.02368	-0.00024	0.09829
#2	4.18790	0.00289	0.30116	-0.02126	-0.00296	0.00232	-0.02230	-0.00143	0.09963
Mean	4.18434	0.00186	0.30071	-0.02391	-0.00277	0.00322	-0.02299	-0.00084	0.09896
%RSD	0.12008	77.78917	0.21060	15.62376	9.91253	39.57128	4.22570	100.41816	0.96151

	Zr ppm	Pb calc	Se calc
#1	0.00078	0.00506	0.00211
#2	0.00022	0.00474	-0.00218
Mean	0.00050	0.00490	-0.00004
%RSD	79.83598	4.60961	8633.90667

Method : Paragon File : 111118A
 SampleId1 : IP111117-1MB SampleId2 :
 Analysis commenced : 11/18/2011 15:59:51

Printed : 11/21/2011 12:55:32
 [SAMPLE]

Dilution ratio : 1.00000 to 1.00000 Tray :

Position : TUBE25

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00014	-0.02647	-0.00400	-0.00599	-0.00125	-0.00037	-0.00140	-0.02402	-0.00080
#2	-0.00045	-0.02910	-0.00042	-0.00492	-0.00129	-0.00040	-0.00226	-0.03698	-0.00078
Mean	-0.00030	-0.02778	-0.00221	-0.00545	-0.00127	-0.00038	-0.00183	-0.03050	-0.00079
%RSD	75.69679	6.69308	114.50372	13.84634	2.31569	5.70882	33.41963	30.03624	1.22439

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00068	-0.00057	0.00052	0.03739	-0.23844	-0.00190	-0.06004	-0.00040	-0.00116
#2	-0.00054	-0.00054	0.00043	0.03727	-0.23071	-0.00189	-0.05691	-0.00049	-0.00190
Mean	-0.00061	-0.00056	0.00047	0.03733	-0.23457	-0.00189	-0.05847	-0.00044	-0.00153
%RSD	15.94065	3.64398	14.08833	0.22531	2.33126	0.39462	3.78854	14.68891	34.05268

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	-0.16304	-0.00188	-0.01933	-0.00100	0.00133	-0.02243	-0.00698	-0.00640	-0.00108
#2	-0.16425	-0.00188	-0.00909	-0.00219	-0.00013	-0.02560	-0.00245	-0.00059	-0.00168
Mean	-0.16365	-0.00188	-0.01421	-0.00160	0.00060	-0.02402	-0.00472	-0.00350	-0.00138
%RSD	0.52507	0.00000	50.94060	52.58994	172.12771	9.33980	67.83272	117.39596	30.49657

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	-0.01080	0.00125	-0.00175	-0.00258	-0.00284	-0.00135	-0.03778	-0.00094	0.00111
#2	-0.01106	0.00330	-0.00180	-0.00112	-0.00275	-0.00085	-0.03298	-0.00041	-0.00057
Mean	-0.01093	0.00227	-0.00177	-0.00185	-0.00280	-0.00110	-0.03538	-0.00068	0.00027
%RSD	1.69966	63.74491	1.84305	55.76514	2.26310	32.28941	9.60488	55.38566	441.53231

	Zr ppm	Pb calc	Se calc
#1	-0.00034	0.00056	-0.00286
#2	-0.00015	-0.00082	-0.00132
Mean	-0.00024	-0.00013	-0.00209
%RSD	57.10828	746.38888	52.04079

Method : Paragon File : 111118A

Printed : 11/21/2011 12:55:32

SampleId1 : IP111117-1RVS SampleId2 :

[SAMPLE]

Analysis commenced : 11/18/2011 16:01:40

Dilution ratio : 1.00000 to 1.00000 Tray :

Position : TUBE26

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	0.00875	1.00799	0.05247	0.04574	0.04957	0.00984	0.10645	4.83529	0.01965
#2	0.01000	1.00745	0.04962	0.04566	0.04932	0.00981	0.10351	4.87768	0.01923

Mean	0.00937	1.00772	0.05104	0.04570	0.04945	0.00982	0.10498	4.85649	0.01944
%RSD	9.45749	0.03785	3.94198	0.11806	0.35754	0.18396	1.98461	0.61714	1.52858
	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	0.02021	0.04991	0.04892	1.03655	7.76909	0.03967	5.02950	0.05027	0.10110
#2	0.01959	0.05010	0.04938	1.03691	7.73783	0.03953	5.03174	0.05055	0.10110
Mean	0.01990	0.05001	0.04915	1.03673	7.75346	0.03960	5.03062	0.05041	0.10110
%RSD	2.20244	0.26830	0.65691	0.02453	0.28512	0.23868	0.03155	0.38711	0.00000
	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	8.27520	0.04997	1.01254	0.05156	0.05119	1.04721	0.09242	0.04956	0.05194
#2	8.25480	0.04875	1.00614	0.05387	0.05115	1.02498	0.09389	0.05195	0.05382
Mean	8.26500	0.04936	1.00934	0.05272	0.05117	1.03610	0.09316	0.05075	0.05288
%RSD	0.17450	1.74897	0.44882	3.09541	0.05598	1.51702	1.11647	3.33803	2.50770
	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	0.27792	0.10444	0.04840	-0.01496	0.04765	0.10131	0.48816	0.04940	0.04985
#2	0.28071	0.10116	0.04836	-0.00846	0.04764	0.10782	0.48542	0.04957	0.05154
Mean	0.27932	0.10280	0.04838	-0.01171	0.04764	0.10457	0.48679	0.04948	0.05070
%RSD	0.70445	2.25515	0.06764	39.20389	0.01475	4.39766	0.39902	0.23397	2.34506
	Zr	Pb	Se						
	ppm	calc	calc						
#1	0.04867	0.05131	0.05115						
#2	0.04877	0.05205	0.05319						
Mean	0.04872	0.05168	0.05217						
%RSD	0.14376	1.01443	2.77669						

Method : Paragon File : 111118A
SampleId1 : ZZZ SampleId2 :
Analysis commenced : 11/18/2011 16:03:31
Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:33

[SAMPLE]

Position : TUBE27

Final concentrations

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	0.08680	2.08660	1.93148	0.47189	2.01640	0.04857	-0.00586	36.52737	0.04715
#2	0.08719	2.08717	1.92791	0.47502	2.01576	0.04868	-0.00153	36.73633	0.04702
Mean	0.08700	2.08689	1.92969	0.47346	2.01608	0.04863	-0.00369	36.63185	0.04709
%RSD	0.31706	0.01929	0.13092	0.46795	0.02244	0.16429	82.79105	0.40335	0.19315
	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	0.47555	0.19232	0.24761	1.02768	35.55886	0.47193	37.25173	0.49362	0.96575
#2	0.47700	0.19348	0.24819	1.02816	35.50246	0.47085	37.27004	0.49464	0.96954
Mean	0.47627	0.19290	0.24790	1.02792	35.53066	0.47139	37.26088	0.49413	0.96765

%RSD	0.21514	0.42332	0.16571	0.03298	0.11225	0.16174	0.03475	0.14574	0.27688	
	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II	
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
#1	35.95504	0.47798	9.42402	0.48418	0.49572	9.74630	0.46684	1.89052	1.90283	
#2	35.94164	0.47825	9.45995	0.49192	0.50020	9.77830	0.46785	1.89727	1.90474	
Mean	35.94834	0.47812	9.44199	0.48805	0.49796	9.76230	0.46735	1.89389	1.90379	
%RSD	0.02634	0.04021	0.26907	1.12090	0.63596	0.23177	0.15290	0.25207	0.07099	
	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn	
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
#1	1.44852	0.51128	0.49523	-0.04000	0.48887	2.01823	9.93291	0.48736	0.47976	
#2	1.45354	0.51867	0.49543	-0.04101	0.48975	2.01136	9.88742	0.48634	0.48449	
Mean	1.45103	0.51497	0.49533	-0.04051	0.48931	2.01480	9.91017	0.48685	0.48212	
%RSD	0.24454	1.01477	0.02834	1.76815	0.12659	0.24132	0.32456	0.14911	0.69318	
	Zr	Pb	Se							
	ppm	calc	calc							
#1	0.98423	0.49188	1.89873							
#2	0.98614	0.49744	1.90226							
Mean	0.98519	0.49466	1.90049							
%RSD	0.13734	0.79529	0.13108							

Method : Paragon File : 111118A
SampleId1 : 1110384-1 SampleId2 :
Analysis commenced : 11/18/2011 16:05:20
Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:33
[SAMPLE]

Position : TUBE28

Final concentrations

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	0.07239	40.88212	0.07154	0.00568	2.29692	0.00423	0.02549	109.61266	1.13941
#2	0.07233	40.65780	0.07618	0.00767	2.28764	0.00418	0.03299	109.23814	1.13538
Mean	0.07236	40.76996	0.07386	0.00668	2.29228	0.00421	0.02924	109.42540	1.13739
%RSD	0.05446	0.38907	4.44072	21.01015	0.28648	0.87745	18.14884	0.24201	0.25014
	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	0.04986	0.03342	10.98278	214.40430	14.33581	0.02380	14.88090	10.78925	0.04796
#2	0.04910	0.03357	10.93927	213.86577	14.26818	0.02363	14.84341	10.75690	0.04927
Mean	0.04948	0.03350	10.96102	214.13503	14.30200	0.02372	14.86215	10.77307	0.04861
%RSD	1.08582	0.32227	0.28064	0.17783	0.33441	0.51411	0.17837	0.21232	1.90557
	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	1.06811	0.05075	2.28888	58.03228	57.82052	2.63926	0.00705	-0.02846	0.01933
#2	1.05817	0.05150	2.29948	57.85945	57.79730	2.61700	0.01036	-0.01868	0.01624
Mean	1.06314	0.05112	2.29418	57.94586	57.80891	2.62813	0.00871	-0.02357	0.01779
%RSD	0.66146	1.03195	0.32677	0.21090	0.02840	0.59890	26.93797	29.35428	12.28466

ted: 11/21/2011 12:56:07 User: MIKE LUNDGREEN

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	14.36362	0.00815	0.33012	0.17833	0.40117	0.00387	0.11080	0.08691	62.86600
#2	14.39551	0.00488	0.32908	0.18062	0.39625	0.00654	0.11871	0.08668	62.92086
Mean	14.37957	0.00652	0.32960	0.17947	0.39871	0.00521	0.11476	0.08679	62.89343
%RSD	0.15683	35.50283	0.22222	0.90273	0.87188	36.30589	4.87988	0.18503	0.06168

	Zr ppm	Pb calc	Se calc
#1	0.00745	57.89103	0.00342
#2	0.00693	57.81799	0.00461
Mean	0.00719	57.85451	0.00401
%RSD	5.12805	0.08927	21.09207

Method : Paragon File : 111118A
 SampleId1 : 1110384-2 SampleId2 :
 Analysis commenced : 11/18/2011 16:07:57
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:33
 [SAMPLE]

Position : TUBE29

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	0.06425	40.60650	0.21116	0.00606	3.41582	0.00406	0.02414	144.42707	0.93274
#2	0.06456	40.49900	0.21063	0.00614	3.41738	0.00406	0.02546	144.74935	0.93177
Mean	0.06440	40.55275	0.21090	0.00610	3.41660	0.00406	0.02480	144.58821	0.93226
%RSD	0.33903	0.18743	0.17709	0.88383	0.03230	0.07944	3.76707	0.15761	0.07393

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.05577	0.04205	10.39023	207.94027	12.75296	0.02877	18.09739	9.88997	0.06581
#2	0.05554	0.04258	10.35514	208.56369	12.73418	0.02874	18.04806	9.91261	0.06482
Mean	0.05566	0.04231	10.37269	208.25198	12.74357	0.02875	18.07272	9.90129	0.06531
%RSD	0.29728	0.88324	0.23926	0.21168	0.10420	0.05192	0.19301	0.16171	1.06380

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	0.75444	0.05512	3.70305	59.45924	59.67492	2.55022	0.00380	-0.01471	0.01990
#2	0.75311	0.05526	3.67727	59.52377	59.37243	2.51842	0.00489	-0.01477	0.01755
Mean	0.75377	0.05519	3.69016	59.49151	59.52368	2.53432	0.00435	-0.01474	0.01872
%RSD	0.12543	0.17380	0.49403	0.07670	0.35934	0.88717	17.70412	0.31605	8.85121

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	12.47444	0.00297	0.37809	0.17807	0.62783	0.00196	0.10902	0.10120	64.24974
#2	12.41995	0.00910	0.37800	0.17782	0.64192	0.01314	0.11821	0.10169	64.60690
Mean	12.44720	0.00604	0.37804	0.17794	0.63488	0.00755	0.11361	0.10145	64.42832
%RSD	0.30954	71.78974	0.01743	0.09746	1.56838	104.65157	5.71861	0.34091	0.39199

	Zr ppm	Pb calc	SeUNDGREEN calc
#1	0.00570	59.60310	0.00837
#2	0.00523	59.42283	0.00679
Mean	0.00547	59.51297	0.00758
%RSD	6.15710	0.21419	14.78829

Method : Paragon File : 111118A
 SampleId1 : 1110384-3 SampleId2 :
 Analysis commenced : 11/18/2011 16:16:01
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:33
 [SAMPLE]
 Position : TUBE30

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	0.12277	15.66620	0.07850	0.00599	0.33644	0.00503	0.00339	288.93001	0.00099
#2	0.12298	15.56205	0.07629	0.00690	0.33497	0.00494	0.00148	288.37056	0.00112
Mean	0.12287	15.61413	0.07740	0.00645	0.33570	0.00498	0.00244	288.65029	0.00105
%RSD	0.11781	0.47163	2.02282	10.04124	0.30828	1.31973	55.48485	0.13705	8.71928

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.01600	0.08244	0.20851	79.88008	5.51512	0.02028	15.33627	1.19015	0.00350
#2	0.01642	0.08241	0.20705	79.70347	5.46535	0.02012	15.25811	1.18725	0.00432
Mean	0.01621	0.08242	0.20778	79.79178	5.49023	0.02020	15.29719	1.18870	0.00391
%RSD	1.80743	0.02981	0.49679	0.15651	0.64104	0.56663	0.36130	0.17242	14.78965

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	1.07895	0.04634	2.63283	0.43451	0.44925	19.28568	0.00592	-0.00896	0.00784
#2	1.06548	0.04671	2.62036	0.43513	0.44967	19.28568	0.00862	-0.00856	0.00670
Mean	1.07222	0.04653	2.62660	0.43482	0.44946	19.28568	0.00727	-0.00876	0.00727
%RSD	0.88806	0.56692	0.33567	0.10141	0.06610	0.00000	26.28375	3.26468	11.11420

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	16.76705	0.02167	1.10445	0.02677	0.40378	0.00642	-0.01594	0.06746	3.13808
#2	16.61984	0.02617	1.10084	0.02180	0.40211	0.00605	-0.00964	0.06743	3.13462
Mean	16.69345	0.02392	1.10264	0.02429	0.40295	0.00624	-0.01279	0.06745	3.13635
%RSD	0.62358	13.32669	0.23126	14.46857	0.29339	4.20550	34.82103	0.03588	0.07794

	Zr ppm	Pb calc	Se calc
#1	0.01483	0.44434	0.00225
#2	0.01483	0.44483	0.00162
Mean	0.01483	0.44458	0.00193
%RSD	0.00907	0.07760	22.94712

Method : Paragon File : 111118A

Printed : 11/21/2011 12:55:33

SampleId1 : CCV SampleId2 :
 Analysis commenced : 11/18/2011 16:17:59
 Dilution ratio : 1.00000 to 1.00000 Tray :

[CV]
 Position : STD6

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	0.20174	54.14486	0.52637	1.04559	1.05646	0.49348	0.54767	49.57289	0.51278
#2	0.20153	54.03935	0.52265	1.03801	1.05444	0.49283	0.55372	49.56417	0.51072
Mean	0.20163	54.09211	0.52451	1.04180	1.05545	0.49315	0.55070	49.56853	0.51175
%RSD	0.07105	0.13792	0.50073	0.51462	0.13564	0.09243	0.77703	0.01244	0.28540
	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.49699	1.00041	1.05483	20.76464	50.39472	0.53698	51.51834	1.00591	1.00941
#2	0.49651	0.99962	1.05182	20.76204	50.21690	0.53503	51.39461	1.00619	1.00966
Mean	0.49675	1.00002	1.05333	20.76334	50.30581	0.53600	51.45647	1.00605	1.00954
%RSD	0.06914	0.05570	0.20172	0.00885	0.24995	0.25698	0.17002	0.01967	0.01731
	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	50.14740	1.01343	5.17142	1.02221	1.03545	5.39326	0.50716	1.06956	1.06184
#2	49.97288	1.01302	5.15527	1.02034	1.03496	5.29126	0.50605	1.06930	1.07165
Mean	50.06014	1.01322	5.16335	1.02128	1.03521	5.34226	0.50660	1.06943	1.06675
%RSD	0.24651	0.02854	0.22126	0.13000	0.03293	1.35009	0.15425	0.01688	0.65072
	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	5.18057	1.08446	0.51875	0.31816	0.50287	0.53956	5.11262	0.49665	0.99273
#2	5.17370	1.08075	0.51833	0.32434	0.50233	0.54276	5.11125	0.49665	0.99002
Mean	5.17714	1.08260	0.51854	0.32125	0.50260	0.54116	5.11194	0.49665	0.99138
%RSD	0.09383	0.24200	0.05736	1.35919	0.07563	0.41881	0.01901	0.00007	0.19353
	Zr ppm	Pb calc	Se calc						
#1	1.01231	1.03104	1.06441						
#2	1.01080	1.03009	1.07087						
Mean	1.01155	1.03057	1.06764						
%RSD	0.10542	0.06496	0.42804						

Method : Paragon File : 111118A
 SampleId1 : CCB SampleId2 :
 Analysis commenced : 11/18/2011 16:19:54
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:33
 [CB]
 Position : STD2

Final concentrations

Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
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#1	-0.00061	0.00719	-0.00432	-0.00660	-0.00088	0.00012	0.00293	-0.05598	-0.00068
#2	-0.00035	0.02743	0.00042	-0.00484	-0.00054	0.00024	-0.00158	-0.03583	-0.00008
Mean	-0.00048	0.01731	-0.00195	-0.00572	-0.00071	0.00018	0.00068	-0.04590	-0.00038
%RSD	38.13852	82.70658	172.03493	21.68593	33.20674	45.70931	470.05859	31.04431	110.91665

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00075	-0.00054	-0.00148	-0.00364	-0.21673	-0.00151	-0.03542	-0.00040	0.00080
#2	-0.00088	-0.00039	-0.00112	0.00599	-0.21524	-0.00145	-0.01976	-0.00003	-0.00051
Mean	-0.00082	-0.00047	-0.00130	0.00117	-0.21599	-0.00148	-0.02759	-0.00021	0.00015
%RSD	11.85234	23.84786	19.81005	579.84333	0.49005	2.85143	40.14482	122.23801	624.53834

	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.16000	-0.00154	-0.01546	-0.00415	0.00065	-0.03512	-0.00280	-0.01384	0.00385
#2	-0.15044	-0.00120	-0.01728	-0.00332	0.00172	-0.03195	-0.00771	0.00622	0.00163
Mean	-0.15522	-0.00137	-0.01637	-0.00373	0.00119	-0.03354	-0.00525	-0.00381	0.00274
%RSD	4.35342	17.53158	7.86049	15.68821	63.95391	6.68913	66.09279	372.42784	57.07973

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.01459	-0.00285	-0.00168	0.00076	-0.00245	-0.00477	-0.03501	-0.00095	-0.00024
#2	-0.01396	0.00166	-0.00146	-0.00066	-0.00267	0.00064	-0.03502	-0.00071	0.00010
Mean	-0.01427	-0.00060	-0.00157	0.00005	-0.00256	-0.00207	-0.03501	-0.00083	-0.00007
%RSD	3.10177	534.79084	9.88133	2001.94867	6.03649	185.05072	0.01325	21.09227	354.85472

	Zr	Pb	Se
	ppm	calc	calc
#1	0.00049	-0.00095	-0.00204
#2	0.00067	0.00004	0.00316
Mean	0.00058	-0.00045	0.00056
%RSD	22.40689	155.53041	656.69482

Method : Paragon File : 111118A
SampleId1 : 1110384-4 SampleId2 :
Analysis commenced : 11/18/2011 16:21:48
Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:34
[SAMPLE]
Position : TUBE31

Final concentrations

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	0.08197	13.42321	0.06290	0.00729	0.42966	0.00374	0.00202	351.68401	-0.00005
#2	0.08076	13.41634	0.05963	0.00782	0.42982	0.00363	0.00376	351.32814	-0.00026
Mean	0.08136	13.41977	0.06127	0.00755	0.42974	0.00369	0.00289	351.50608	-0.00016
%RSD	1.04682	0.03619	3.77129	4.99955	0.02755	2.14952	42.43723	0.07159	94.29252

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	0.01011	0.05837	0.12049	50.05073	4.75506	0.01956	12.15270	0.75919	0.00629

#2	0.01031	0.05805	0.12031	50.02044	4.75481	0.01962	12.15089	0.75892	0.00801
Mean	0.01021	0.05821	0.12040	50.03558	4.75494	0.01959	12.15180	0.75905	0.00715
%RSD	1.42764	0.38388	0.10868	0.04281	0.00373	0.19057	0.01050	0.02597	17.00759

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	1.18551	0.03481	2.22251	0.10816	0.11074	23.10849	0.00019	-0.00267	0.00487
#2	1.18618	0.03234	2.19809	0.10808	0.10907	23.08907	0.00339	-0.00645	0.00682
Mean	1.18584	0.03357	2.21030	0.10812	0.10990	23.09878	0.00179	-0.00456	0.00585
%RSD	0.04002	5.21360	0.78119	0.05385	1.07943	0.05945	126.43837	58.55785	23.62079

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	11.60136	0.00545	1.26445	0.01630	0.26040	-0.00052	-0.01142	0.05256	1.60935
#2	11.59943	0.00586	1.26611	0.01640	0.26067	-0.00033	-0.00728	0.05292	1.60560
Mean	11.60040	0.00565	1.26528	0.01635	0.26053	-0.00042	-0.00935	0.05274	1.60748
%RSD	0.01175	5.12074	0.09281	0.45802	0.07290	31.77291	31.30391	0.48582	0.16503

	Zr ppm	Pb calc	Se calc
#1	0.01184	0.10988	0.00236
#2	0.01186	0.10874	0.00240
Mean	0.01185	0.10931	0.00238
%RSD	0.11912	0.74163	1.32251

Method : Paragon File : 111118A
 SampleId1 : 1110384-5 SampleId2 :
 Analysis commenced : 11/18/2011 16:23:37
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:34

[SAMPLE]

Position : TUBE32

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	0.03800	24.34804	0.12892	0.73016	2.72496	0.00391	0.01513	5.02896	0.02362
#2	0.03830	24.26264	0.13504	0.73475	2.71579	0.00384	0.01825	5.04086	0.02327
Mean	0.03815	24.30534	0.13198	0.73246	2.72038	0.00388	0.01669	5.03491	0.02344
%RSD	0.56558	0.24845	3.27890	0.44309	0.23812	1.34269	13.18661	0.16722	1.04916

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.04317	0.12498	1.72647	191.74582	15.91706	0.01204	14.48888	0.85377	0.19966
#2	0.04364	0.12447	1.72446	191.40229	15.84674	0.01194	14.45998	0.85201	0.19516
Mean	0.04340	0.12473	1.72546	191.57405	15.88190	0.01199	14.47443	0.85289	0.19741
%RSD	0.77530	0.28835	0.08262	0.12680	0.31310	0.62292	0.14119	0.14659	1.61457

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	9.98824	0.11920	0.80330	29.48031	29.42666	1.33622	0.00923	-0.01564	0.02275
#2	9.94351	0.11815	0.80673	29.43745	29.28442	1.35210	0.00797	-0.01824	0.01970

Mean	9.96588	0.11867	0.80502	29.45888	29.35554	1.34416	0.00860	-0.01694	0.02122
%RSD	0.31737	0.62664	0.30112	0.10287	0.34262	0.83547	10.34680	10.84883	10.16424
	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	0.78429	0.00154	0.15185	0.02166	1.15360	0.01238	0.02941	1.72015	4.67208
#2	0.81915	0.00154	0.15139	0.02304	1.15033	0.00824	0.04132	1.71614	4.67593
Mean	0.80172	0.00154	0.15162	0.02235	1.15197	0.01031	0.03537	1.71814	4.67401
%RSD	3.07406	0.17439	0.21090	4.37310	0.20082	28.35611	23.80503	0.16491	0.05830
	Zr	Pb	Se						
	ppm	calc	calc						
#1	0.01673	29.44452	0.00996						
#2	0.01666	29.33538	0.00706						
Mean	0.01670	29.38995	0.00851						
%RSD	0.28934	0.26260	24.09037						

Method : Paragon File : 111118A
SampleId1 : 1110384-6 SampleId2 :
Analysis commenced : 11/18/2011 16:25:26
Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:34
[SAMPLE]
Position : TUBE33

Final concentrations

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	0.05545	16.31421	0.14791	0.00530	0.23096	0.00394	0.03041	9.01229	0.05420
#2	0.05586	16.25389	0.14158	0.00584	0.22937	0.00385	0.02618	9.00352	0.05449
Mean	0.05565	16.28405	0.14475	0.00557	0.23016	0.00389	0.02830	9.00791	0.05435
%RSD	0.52484	0.26192	3.09333	6.78005	0.48755	1.65880	10.57486	0.06885	0.38006
	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	0.04575	0.08760	2.95800	182.74425	4.74351	0.00666	9.44391	0.73364	0.24573
#2	0.04597	0.08754	2.93495	182.17692	4.72669	0.00663	9.39844	0.73123	0.24270
Mean	0.04586	0.08757	2.94648	182.46058	4.73510	0.00664	9.42117	0.73243	0.24422
%RSD	0.33206	0.05292	0.55312	0.21986	0.25126	0.37471	0.34126	0.23319	0.87827
	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	0.60491	0.09016	0.55620	25.11703	25.05554	2.08926	0.00535	-0.00816	0.02289
#2	0.60491	0.09104	0.57354	25.04308	24.95995	2.08290	0.00361	-0.00620	0.01817
Mean	0.60491	0.09060	0.56487	25.08005	25.00775	2.08608	0.00448	-0.00718	0.02053
%RSD	0.00000	0.68830	2.17129	0.20849	0.27030	0.21547	27.46452	19.34071	16.23891
	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	6.15113	0.00607	0.16790	0.02038	0.78362	0.00748	0.01632	2.22659	4.68294
#2	6.17967	0.01304	0.16702	0.02500	0.77836	0.00485	0.02151	2.21852	4.68469
Mean	6.16540	0.00955	0.16746	0.02269	0.78099	0.00617	0.01891	2.22255	4.68381

%RSD	0.32734	51.59272	0.37223	14.39033	0.47629	30.16427	19.41241	0.25660	0.02644
	Zr	Pb	Se						
	ppm	calc	calc						
#1	0.00352	25.07602	0.01255						
#2	0.00378	24.98763	0.01006						
Mean	0.00365	25.03182	0.01130						
%RSD	5.17267	0.24967	15.58276						

Method : Paragon File : 111118A
SampleId1 : 1111160-2 SampleId2 :
Analysis commenced : 11/18/2011 16:31:16
Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:34
[SAMPLE]

Position : TUBE34

Final concentrations

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00234	116.55080	0.05858	0.58525	2.58176	0.00742	0.00432	194.90889	0.00072
#2	-0.00207	116.59212	0.05299	0.58333	2.59078	0.00741	0.00796	194.26889	0.00070
Mean	-0.00220	116.57146	0.05579	0.58429	2.58627	0.00742	0.00614	194.58889	0.00071
%RSD	8.60362	0.02507	7.08059	0.23131	0.24656	0.09084	41.90165	0.23256	1.88806

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	0.05287	0.08612	0.12033	185.66426	46.32317	0.13531	42.14193	2.05239	0.00309
#2	0.05343	0.08588	0.12015	185.20158	46.39539	0.13552	42.14009	2.05050	0.00375
Mean	0.05315	0.08600	0.12024	185.43292	46.35928	0.13542	42.14101	2.05145	0.00342
%RSD	0.74844	0.20267	0.10299	0.17643	0.11017	0.11360	0.00308	0.06524	13.52957

	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	ppm	ppm	ppm						
#1	8.56296	0.11011	4.72005	0.13045	0.14617	7.83762	-0.00331	-0.01028	0.03284
#2	8.57202	0.10929	4.71795	0.13204	0.14907	7.89192	0.00050	-0.00367	0.03428
Mean	8.56749	0.10970	4.71900	0.13125	0.14762	7.86477	-0.00141	-0.00698	0.03356
%RSD	0.07478	0.52480	0.03150	0.85642	1.39018	0.48827	191.27515	66.99217	3.03337

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm								
#1	0.67856	0.00968	0.67852	0.09296	0.14507	0.01133	0.31713	0.21107	1.32936
#2	0.67276	0.00599	0.68063	0.09483	0.14544	0.01053	0.30852	0.21209	1.32766
Mean	0.67566	0.00783	0.67957	0.09389	0.14525	0.01093	0.31282	0.21158	1.32851
%RSD	0.60678	33.27896	0.21955	1.41120	0.18395	5.16968	1.94656	0.33964	0.09054

	Zr	Pb	Se
	ppm	calc	calc
#1	0.04537	0.14094	0.01848
#2	0.04505	0.14340	0.02164
Mean	0.04521	0.14217	0.02006
%RSD	0.49501	1.22609	11.14136

ted: 11/21/2011 12:56:07 User: MIKE LUNDGREEN
 Method : Paragon File : 111118A
 SampleId1 : 1111160-2D SampleId2 :
 Analysis commenced : 11/18/2011 16:33:05
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:34
 [SAMPLE]

Position : TUBE35

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00327	115.68671	0.05436	0.23609	1.19573	0.00740	0.00935	186.91362	0.00003
#2	-0.00113	115.31836	0.06195	0.23441	1.19205	0.00742	0.00796	186.65061	0.00087
Mean	-0.00220	115.50253	0.05816	0.23525	1.19389	0.00741	0.00866	186.78211	0.00045
%RSD	68.67420	0.22551	9.22700	0.50489	0.21770	0.16889	11.32179	0.09957	133.26487

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.05264	0.08428	0.11797	173.28792	43.82709	0.13243	41.51898	1.90860	0.00400
#2	0.05312	0.08443	0.11833	173.02646	43.65908	0.13198	41.48593	1.90510	0.00203
Mean	0.05288	0.08435	0.11815	173.15719	43.74308	0.13220	41.50245	1.90685	0.00301
%RSD	0.63814	0.13054	0.21659	0.10677	0.27158	0.24026	0.05630	0.12958	46.10164

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	1.93992	0.10665	4.76116	0.12810	0.13820	7.75776	-0.00022	-0.00946	0.03289
#2	1.92758	0.10797	4.75696	0.13168	0.13740	7.70345	-0.00024	-0.00047	0.03676
Mean	1.93375	0.10731	4.75906	0.12989	0.13780	7.73061	-0.00023	-0.00497	0.03482
%RSD	0.45100	0.87179	0.06249	1.94725	0.41093	0.49668	5.63447	128.00422	7.84929

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	0.79384	0.01172	0.65534	0.08510	0.14920	0.00894	0.30839	0.20875	0.75422
#2	0.78397	0.00844	0.65381	0.08758	0.14898	0.00333	0.31063	0.20801	0.75084
Mean	0.78891	0.01008	0.65457	0.08634	0.14909	0.00613	0.30951	0.20838	0.75253
%RSD	0.88469	22.98028	0.16454	2.03302	0.10376	64.65952	0.51130	0.25348	0.31800

	Zr ppm	Pb calc	Se calc
#1	0.03164	0.13484	0.01879
#2	0.03171	0.13550	0.02436
Mean	0.03168	0.13517	0.02157
%RSD	0.15062	0.34369	18.26528

Method : Paragon File : 111118A
 SampleId1 : 1111160-2L 5X SampleId2 :
 Analysis commenced : 11/18/2011 16:34:54
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:35
 [SAMPLE]

Position : TUBE36

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00126	22.77256	0.00779	0.10060	0.48162	0.00167	0.00254	36.77361	-0.00053
#2	-0.00018	22.56005	0.01074	0.10182	0.47723	0.00164	0.00047	36.80019	-0.00023
Mean	-0.00072	22.66631	0.00927	0.10121	0.47943	0.00165	0.00151	36.78690	-0.00038
%RSD	106.55712	0.66295	22.49939	0.85306	0.64872	1.12979	97.43534	0.05110	56.43228

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.00971	0.01565	0.02193	34.31001	7.53818	0.01972	8.39980	0.42071	-0.00010
#2	0.01032	0.01699	0.02200	34.25272	7.44644	0.01950	8.35706	0.42061	0.00031
Mean	0.01001	0.01632	0.02197	34.28137	7.49231	0.01961	8.37843	0.42066	0.00011
%RSD	4.33091	5.80045	0.24272	0.11815	0.86584	0.81228	0.36071	0.01555	269.57605

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	1.09046	0.02230	0.92790	0.02259	0.03045	1.50140	-0.00371	0.00299	0.00816
#2	1.07269	0.02257	0.92676	0.02826	0.02703	1.51411	0.00069	0.00011	0.00329
Mean	1.08158	0.02243	0.92733	0.02542	0.02874	1.50775	-0.00151	0.00155	0.00572
%RSD	1.16176	0.85499	0.08719	15.77861	8.43061	0.59594	206.05381	131.49533	60.15166

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	0.12557	-0.00083	0.13738	0.01748	0.02688	-0.00107	0.01921	0.04202	0.25348
#2	0.13236	-0.00206	0.13594	0.01507	0.02682	0.00632	0.03916	0.04299	0.25482
Mean	0.12896	-0.00145	0.13666	0.01628	0.02685	0.00262	0.02918	0.04251	0.25415
%RSD	3.72298	59.95348	0.74372	10.46810	0.15707	199.38480	48.34035	1.61490	0.37492

	Zr ppm	Pb calc	Se calc
#1	0.00857	0.02783	0.00643
#2	0.00923	0.02744	0.00223
Mean	0.00890	0.02764	0.00433
%RSD	5.19549	1.01446	68.64233

Method : Paragon File : 111118A
 SampleId1 : 1111160-2MS SampleId2 :
 Analysis commenced : 11/18/2011 16:36:44
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:35
 [SAMPLE]
 Position : TUBE37

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	0.08291	169.93171	1.90669	0.38754	2.99570	0.05360	0.00989	229.41603	0.04652
#2	0.08286	170.42573	1.92368	0.39395	3.01206	0.05369	0.00176	228.94339	0.04663
Mean	0.08289	170.17872	1.91519	0.39074	3.00388	0.05365	0.00582	229.17971	0.04657
%RSD	0.04062	0.20527	0.62743	1.16130	0.38496	0.11176	98.72782	0.14583	0.17189

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
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	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	0.49535	0.28357	0.37312	188.51134	91.64813	0.72490	82.98809	2.37856	0.79123
#2	0.49420	0.28452	0.37517	188.33756	91.93805	0.72827	83.18884	2.38066	0.80012
Mean	0.49478	0.28405	0.37414	188.42445	91.79309	0.72658	83.08846	2.37961	0.79567
%RSD	0.16482	0.23596	0.38820	0.06521	0.22333	0.32747	0.17084	0.06214	0.78969

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	43.60973	0.56868	14.02204	0.58413	0.60568	16.76551	0.16108	1.86505	1.90364
#2	43.73919	0.57021	13.96983	0.58445	0.60327	16.73010	0.16188	1.88906	1.90404
Mean	43.67446	0.56945	13.99593	0.58429	0.60447	16.74780	0.16148	1.87706	1.90384
%RSD	0.20961	0.19001	0.26379	0.03856	0.28130	0.14951	0.35169	0.90453	0.01479

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	1.10583	0.49630	1.18457	0.06493	0.30601	1.93364	9.82317	0.71708	1.08299
#2	1.10187	0.50040	1.19160	0.06577	0.30635	1.96320	9.87223	0.71709	1.07620
Mean	1.10385	0.49835	1.18808	0.06535	0.30618	1.94842	9.84770	0.71708	1.07959
%RSD	0.25358	0.58254	0.41801	0.90872	0.07812	1.07283	0.35222	0.00074	0.44464

	Zr ppm	Pb calc	Se calc
#1	0.68898	0.59850	1.89079
#2	0.69241	0.59700	1.89905
Mean	0.69069	0.59775	1.89492
%RSD	0.35109	0.17718	0.30828

Method : Paragon File : 111118A
SampleId1 : 1111160-2MSD SampleId2 :
Analysis commenced : 11/18/2011 16:38:33
Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:35
[SAMPLE]
Position : TUBE38

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	0.08719	176.64150	1.99105	0.37134	3.06977	0.05560	0.00643	226.18306	0.04801
#2	0.08842	175.87788	2.00524	0.37165	3.06343	0.05571	0.00711	228.25329	0.04745
Mean	0.08781	176.25969	1.99815	0.37149	3.06660	0.05566	0.00677	227.21817	0.04773
%RSD	0.98667	0.30634	0.50237	0.05816	0.14636	0.14157	7.09632	0.64426	0.82455

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.51435	0.29345	0.39014	188.52643	95.80417	0.76524	85.32180	2.42088	0.82258
#2	0.51676	0.29563	0.38843	190.24266	95.19658	0.75938	85.38347	2.43505	0.83048
Mean	0.51556	0.29454	0.38929	189.38454	95.50038	0.76231	85.35263	2.42796	0.82653
%RSD	0.33092	0.52471	0.30930	0.64079	0.44987	0.54360	0.05109	0.41277	0.67588

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
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#1	45.70284	0.59082	14.02253	0.60063	0.62614	17.71880	0.17329	1.97031	1.97346
#2	45.43792	0.59667	14.08996	0.60097	0.62081	17.74779	0.16362	1.94868	1.97754
Mean	45.57038	0.59375	14.05624	0.60080	0.62347	17.73329	0.16846	1.95950	1.97550
%RSD	0.41107	0.69663	0.33921	0.03986	0.60362	0.11563	4.05814	0.78061	0.14617

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm	ppm	ppm						
#1	1.19288	0.52053	1.21319	0.05775	0.29893	2.04254	10.39458	0.73691	1.01410
#2	1.18853	0.52094	1.21213	0.06998	0.29844	2.06883	10.36170	0.73901	1.03174
Mean	1.19070	0.52074	1.21266	0.06386	0.29868	2.05568	10.37814	0.73796	1.02292
%RSD	0.25802	0.05584	0.06219	13.54228	0.11541	0.90413	0.22402	0.20138	1.21948

	Zr	Pb	Se
	ppm	calc	calc
#1	0.73404	0.61764	1.97241
#2	0.73395	0.61420	1.96793
Mean	0.73399	0.61592	1.97017
%RSD	0.00939	0.39460	0.16078

Method : Paragon File : 111118A
SampleId1 : 1111160-3 SampleId2 :
Analysis commenced : 11/18/2011 16:40:23
Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:35
[SAMPLE]
Position : TUBE39

Final concentrations

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00260	139.63783	0.06807	0.00957	1.17228	0.01013	0.00921	165.38976	0.00066
#2	-0.00244	139.53207	0.06575	0.01156	1.17034	0.01000	0.01094	164.74033	0.00115
Mean	-0.00252	139.58495	0.06691	0.01057	1.17131	0.01007	0.01008	165.06504	0.00090
%RSD	4.50348	0.05358	2.45101	13.27396	0.11729	0.91904	12.11936	0.27821	38.56995

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	0.07150	0.10610	0.15763	227.13943	42.21253	0.17234	50.35944	2.20074	0.00457
#2	0.07144	0.10459	0.15799	226.33606	42.17015	0.17231	50.35944	2.19467	0.00792
Mean	0.07147	0.10535	0.15781	226.73775	42.19134	0.17233	50.35944	2.19770	0.00625
%RSD	0.06208	1.01174	0.16253	0.25054	0.07103	0.01151	0.00000	0.19526	37.99156

	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	ppm	ppm							
#1	1.04258	0.14240	5.12109	0.15200	0.17318	4.66351	0.00299	-0.01777	0.01629
#2	1.04923	0.14179	5.07170	0.15428	0.17035	4.63166	0.00450	-0.01704	0.02141
Mean	1.04590	0.14210	5.09639	0.15314	0.17176	4.64759	0.00374	-0.01740	0.01885
%RSD	0.44943	0.30391	0.68524	1.05032	1.16350	0.48467	28.58518	2.95114	19.19784

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	16.12468	0.00935	0.79777	0.13008	0.42723	0.01419	0.05475	0.18270	0.56959

#2	16.17144	0.00567	0.79619	0.13097	0.42304	0.01475	0.05598	0.18160	0.57094
Mean	16.14806	0.00751	0.79698	0.13052	0.42514	0.01447	0.05536	0.18215	0.57027
%RSD	0.20474	34.67179	0.14075	0.48223	0.69690	2.75745	1.57554	0.42604	0.16757

	Zr ppm	Pb calc	Se calc
#1	0.05157	0.16613	0.00495
#2	0.05040	0.16500	0.00860
Mean	0.05099	0.16556	0.00678
%RSD	1.62721	0.48161	38.14028

Method : Paragon File : 111118A
SampleId1 : 1111160-4 SampleId2 :
Analysis commenced : 11/18/2011 16:42:12
Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:35

[SAMPLE]

Position : TUBE40

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00239	135.37856	0.06374	0.00423	1.12638	0.00982	0.01194	147.97905	0.00065
#2	-0.00187	134.85494	0.05320	0.00545	1.12406	0.00984	0.00863	148.32740	0.00143
Mean	-0.00213	135.11675	0.05847	0.00484	1.12522	0.00983	0.01028	148.15322	0.00104
%RSD	17.14218	0.27403	12.74602	17.81552	0.14591	0.11151	22.75605	0.16626	53.02484

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.06726	0.10192	0.14871	218.62580	37.10919	0.16263	49.73116	1.88886	0.00457
#2	0.06824	0.10251	0.14789	219.25708	36.94149	0.16193	49.73116	1.89226	0.00195
Mean	0.06775	0.10222	0.14830	218.94144	37.02534	0.16228	49.73116	1.89056	0.00326
%RSD	1.02096	0.40891	0.39381	0.20388	0.32026	0.30253	0.00000	0.12714	56.83687

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	0.45835	0.13033	5.29909	0.19597	0.21703	4.34181	-0.00113	-0.02181	0.01848
#2	0.46152	0.12999	5.32346	0.19889	0.20969	4.30997	0.00349	-0.02377	0.01069
Mean	0.45994	0.13016	5.31127	0.19743	0.21336	4.32589	0.00118	-0.02279	0.01459
%RSD	0.48688	0.18432	0.32446	1.04730	2.43186	0.52057	277.22043	6.07803	37.77292

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	10.53118	0.01398	0.67752	0.12904	0.31975	0.01127	0.05917	0.16029	0.55372
#2	10.55222	0.01481	0.67624	0.13322	0.31142	0.01344	0.06904	0.16164	0.55878
Mean	10.54170	0.01440	0.67688	0.13113	0.31559	0.01236	0.06411	0.16097	0.55625
%RSD	0.14109	4.07200	0.13347	2.25171	1.86587	12.40101	10.88596	0.59329	0.64416

	Zr ppm	Pb calc	Se calc
#1	0.05070	0.21002	0.00507
#2	0.05038	0.20610	-0.00078

Mean 0.05054 0.20806 0.00214UNDRGREEN
 %RSD 0.45225 1.33247 193.20859

Method : Paragon File : 111118A
 SampleId1 : CCV SampleId2 :
 Analysis commenced : 11/18/2011 16:44:42
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:35
 [CV]
 Position : STD6

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	0.19862	53.22806	0.51013	1.02376	1.03727	0.48269	0.54117	48.71254	0.50552
#2	0.20040	53.18693	0.51416	1.02866	1.03731	0.48352	0.53546	48.72903	0.50640
Mean	0.19951	53.20750	0.51215	1.02621	1.03729	0.48311	0.53832	48.72079	0.50596
%RSD	0.62830	0.05467	0.55667	0.33771	0.00287	0.12253	0.75091	0.02393	0.12329

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.48772	0.98179	1.03741	20.30239	49.60051	0.52539	50.61460	0.98642	0.99706
#2	0.48821	0.98270	1.03659	20.30716	49.54474	0.52513	50.68197	0.98763	1.00208
Mean	0.48797	0.98224	1.03700	20.30477	49.57263	0.52526	50.64828	0.98702	0.99957
%RSD	0.07023	0.06571	0.05608	0.01663	0.07955	0.03460	0.09406	0.08683	0.35552

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	49.40710	0.99615	5.03636	1.00143	1.01521	5.25301	0.50861	1.04803	1.04625
#2	49.34733	0.99836	5.03122	0.99809	1.00913	5.24982	0.50752	1.03837	1.05098
Mean	49.37721	0.99725	5.03379	0.99976	1.01217	5.25141	0.50807	1.04320	1.04861
%RSD	0.08560	0.15707	0.07231	0.23622	0.42520	0.04292	0.15062	0.65525	0.31939

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	5.08279	1.05441	0.51004	0.30833	0.49200	0.53240	5.02282	0.48921	0.96221
#2	5.08662	1.05071	0.51051	0.30918	0.49173	0.53871	5.02626	0.49028	0.96425
Mean	5.08471	1.05256	0.51028	0.30875	0.49186	0.53556	5.02454	0.48974	0.96323
%RSD	0.05331	0.24889	0.06475	0.19340	0.03864	0.83411	0.04836	0.15430	0.14935

	Zr ppm	Pb calc	Se calc
#1	0.99421	1.01062	1.04684
#2	0.99549	1.00545	1.04678
Mean	0.99485	1.00804	1.04681
%RSD	0.09121	0.36279	0.00404

Method : Paragon File : 111118A
 SampleId1 : CCB SampleId2 :
 Analysis commenced : 11/18/2011 16:46:37
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:36
 [CB]
 Position : STD2

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00103	0.02827	-0.00010	-0.00553	-0.00067	0.00020	-0.00175	-0.03928	-0.00063
#2	0.00006	0.02863	0.00527	-0.00606	-0.00071	0.00015	-0.00435	-0.04331	-0.00025
Mean	-0.00049	0.02845	0.00258	-0.00580	-0.00069	0.00017	-0.00305	-0.04130	-0.00044
%RSD	157.73940	0.88277	147.17095	6.51321	4.27636	18.84220	60.23353	6.90147	61.50584

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00013	-0.00136	-0.00120	0.01348	-0.20925	-0.00166	-0.02916	-0.00030	-0.00018
#2	-0.00075	-0.00011	-0.00103	0.00789	-0.19752	-0.00164	-0.02692	-0.00030	-0.00051
Mean	-0.00044	-0.00073	-0.00112	0.01069	-0.20339	-0.00165	-0.02804	-0.00030	-0.00034
%RSD	100.33922	120.25520	10.84771	36.97863	4.07659	0.60427	5.64343	0.00000	67.52859

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	-0.15834	-0.00099	-0.00932	-0.00378	0.00151	-0.01609	-0.00696	-0.00741	0.00223
#2	-0.15956	-0.00127	-0.00318	-0.00097	-0.00052	-0.03195	-0.00294	-0.00336	-0.00254
Mean	-0.15895	-0.00113	-0.00625	-0.00237	0.00050	-0.02402	-0.00495	-0.00538	-0.00015
%RSD	0.54061	16.97060	69.51937	83.79065	288.95374	46.69905	57.50972	53.16977	2204.47278

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	-0.01635	-0.00080	-0.00159	-0.00167	-0.00286	0.00244	-0.03777	-0.00107	0.00044
#2	-0.01524	0.00534	-0.00159	-0.00855	-0.00303	-0.00386	-0.02472	-0.00017	-0.00024
Mean	-0.01579	0.00227	-0.00159	-0.00511	-0.00294	-0.00071	-0.03124	-0.00062	0.00010
%RSD	4.99288	191.23428	0.00000	95.25600	4.05827	627.88015	29.53092	102.06965	470.25314

	Zr ppm	Pb calc	Se calc
#1	0.00027	-0.00025	-0.00098
#2	0.00116	-0.00067	-0.00281
Mean	0.00072	-0.00046	-0.00189
%RSD	87.56765	64.34965	68.46009

Method : Paragon File : 111118A
 SampleId1 : 1111160-5 SampleId2 :
 Analysis commenced : 11/18/2011 16:48:32
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:36
 [SAMPLE]

Position : TUBE41

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00300	128.67596	0.07418	0.00965	1.24522	0.01023	0.01304	164.58434	0.00100
#2	-0.00258	128.03473	0.06564	0.00782	1.23850	0.01012	0.01165	164.49682	0.00052
Mean	-0.00279	128.35534	0.06991	0.00873	1.24186	0.01017	0.01235	164.54058	0.00076
%RSD	10.62043	0.35325	8.63673	14.82100	0.38272	0.75974	7.94911	0.03761	44.32902

ted: 11/21/2011 12:56:07 User: MIKE LUNDGREEN

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.07542	0.10396	0.17198	240.26855	40.00881	0.17414	53.98460	2.25832	0.00146
#2	0.07478	0.10374	0.17035	240.33016	39.68225	0.17294	53.78903	2.25443	0.00465
Mean	0.07510	0.10385	0.17116	240.29935	39.84553	0.17354	53.88681	2.25638	0.00305
%RSD	0.59621	0.14959	0.67610	0.01813	0.57952	0.48707	0.25662	0.12193	73.91114

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	0.79228	0.13949	5.58495	0.16541	0.18217	5.47933	0.00102	-0.02384	0.01742
#2	0.78275	0.14261	5.57697	0.16524	0.17984	5.44745	0.00326	-0.02776	0.01530
Mean	0.78751	0.14105	5.58096	0.16532	0.18100	5.46339	0.00214	-0.02580	0.01636
%RSD	0.85566	1.56487	0.10110	0.07365	0.90945	0.41259	73.78074	10.73818	9.14909

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	10.13683	0.01316	0.77505	0.13365	0.31777	0.01506	0.06572	0.17407	0.60305
#2	10.06527	0.00661	0.77136	0.13515	0.31972	0.00928	0.06568	0.17342	0.60169
Mean	10.10105	0.00989	0.77321	0.13440	0.31875	0.01217	0.06570	0.17374	0.60237
%RSD	0.50099	46.89781	0.33726	0.78998	0.43260	33.54742	0.04515	0.26175	0.15869

	Zr ppm	Pb calc	Se calc
#1	0.04753	0.17659	0.00368
#2	0.04690	0.17498	0.00096
Mean	0.04721	0.17578	0.00232
%RSD	0.93374	0.64769	82.87257

Method : Paragon File : l11118A
 SampleId1 : l111160-6 SampleId2 :
 Analysis commenced : 11/18/2011 16:50:22
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:36
 [SAMPLE]

Position : TUBE42

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00137	46.81959	0.05584	0.00019	0.24629	0.00335	-0.00239	72.86356	-0.00082
#2	-0.00162	46.65583	0.04635	-0.00111	0.24578	0.00335	0.00227	72.89189	-0.00003
Mean	-0.00150	46.73771	0.05110	-0.00046	0.24604	0.00335	-0.00006	72.87773	-0.00043
%RSD	12.10367	0.24775	13.12636	200.52616	0.14406	0.04564	5615.35482	0.02749	130.26361

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.02117	0.02473	0.03640	95.01240	7.71136	0.05046	17.04322	1.23458	0.00023
#2	0.02091	0.02442	0.03541	94.94314	7.67127	0.05026	17.04774	1.23299	0.00031
Mean	0.02104	0.02458	0.03591	94.97777	7.69132	0.05036	17.04548	1.23379	0.00027
%RSD	0.87598	0.89123	1.95760	0.05156	0.36852	0.28641	0.01876	0.09116	21.35299

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	0.09872	0.03003	1.70078	0.07331	0.07723	16.49834	-0.00135	0.10262	0.10755
#2	0.09694	0.02820	1.70261	0.07238	0.07782	16.45329	-0.00122	0.09530	0.11700
Mean	0.09783	0.02911	1.70169	0.07285	0.07752	16.47581	-0.00129	0.09896	0.11227
%RSD	1.28071	4.44720	0.07636	0.90272	0.54068	0.19338	6.94092	5.23221	5.95246

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	5.02546	-0.00511	0.28546	0.04356	0.18006	0.00644	0.45920	0.25729	0.17468
#2	4.80142	0.00391	0.28456	0.05045	0.17275	0.00331	0.45169	0.25613	0.17400
Mean	4.91344	-0.00060	0.28501	0.04701	0.17641	0.00487	0.45544	0.25671	0.17434
%RSD	3.22423	1064.57971	0.22213	10.36632	2.92999	45.49626	1.16542	0.31977	0.27308

	Zr ppm	Pb calc	Se calc
#1	0.03887	0.07592	0.10590
#2	0.03898	0.07601	0.10977
Mean	0.03893	0.07597	0.10784
%RSD	0.21053	0.07977	2.53468

Method : Paragon File : 111118A
SampleId1 : 111160-7 SampleId2 :
Analysis commenced : 11/18/2011 16:52:11
Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:36
[SAMPLE]
Position : TUBE43

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00200	86.14408	0.05162	0.00797	0.56021	0.00622	0.01074	155.89795	0.00025
#2	-0.00168	86.08141	0.05563	0.00767	0.55975	0.00627	0.00674	155.97359	0.00059
Mean	-0.00184	86.11274	0.05362	0.00782	0.55998	0.00624	0.00874	155.93577	0.00042
%RSD	12.05395	0.05147	5.28103	2.75934	0.05824	0.54222	32.29139	0.03430	56.14797

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.03821	0.05663	0.08361	148.09688	28.23799	0.09789	30.40801	2.36393	0.00465
#2	0.03814	0.05698	0.08324	148.26032	28.13707	0.09774	30.40846	2.36450	0.00506
Mean	0.03818	0.05680	0.08343	148.17860	28.18753	0.09782	30.40824	2.36421	0.00485
%RSD	0.12100	0.42703	0.31084	0.07800	0.25318	0.11172	0.00106	0.01705	5.96105

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	0.28559	0.07035	4.14912	0.14872	0.15632	22.17022	-0.00164	0.08706	0.11368
#2	0.28426	0.07069	4.16845	0.15218	0.15776	22.17992	-0.00213	0.09033	0.11772
Mean	0.28493	0.07052	4.15879	0.15045	0.15704	22.17507	-0.00189	0.08870	0.11570
%RSD	0.33038	0.34007	0.32863	1.62715	0.65185	0.03094	18.34746	2.60474	2.46927

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
--	----	----	----	----	----	----	---	---	----

	ppm								
#1	8.03325	0.00871	0.45707	0.07126	0.26961	0.00434	1.12288	0.32550	0.32155
#2	8.03593	0.00380	0.45725	0.06683	0.26764	0.00611	1.12689	0.32504	0.32425
Mean	8.03459	0.00626	0.45716	0.06905	0.26862	0.00523	1.12489	0.32527	0.32290
%RSD	0.02361	55.52362	0.02707	4.53167	0.51848	23.95598	0.25207	0.10007	0.59056

	Zr ppm	Pb calc	Se calc
#1	0.05420	0.15379	0.10482
#2	0.05337	0.15590	0.10860
Mean	0.05379	0.15485	0.10671
%RSD	1.08539	0.96741	2.50676

Method : Paragon File : 111118A
 SampleId1 : 1111160-8 SampleId2 :
 Analysis commenced : 11/18/2011 16:54:01
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:36
 [SAMPLE]
 Position : TUBE44

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00332	89.28948	0.06617	0.00423	0.59791	0.00652	0.00096	144.03839	-0.00051
#2	-0.00146	89.22607	0.06501	0.00698	0.59606	0.00654	0.00581	144.74759	0.00041
Mean	-0.00239	89.25777	0.06559	0.00561	0.59699	0.00653	0.00339	144.39299	-0.00005
%RSD	55.13360	0.05024	1.25010	34.63163	0.21862	0.13311	101.23462	0.34731	1282.34642

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.03905	0.06006	0.08748	158.87433	26.22575	0.10276	31.75042	2.12482	0.00121
#2	0.04071	0.06174	0.08792	159.47852	26.11423	0.10220	31.69612	2.13022	0.00498
Mean	0.03988	0.06090	0.08770	159.17643	26.16999	0.10248	31.72327	2.12752	0.00309
%RSD	2.94619	1.95600	0.35470	0.26840	0.30131	0.39014	0.12104	0.17946	86.02438

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	0.34080	0.07259	3.90316	0.13845	0.16261	21.15191	-0.00073	0.05964	0.08799
#2	0.33686	0.07530	3.93758	0.15075	0.15548	21.10021	0.00223	0.05441	0.08965
Mean	0.33883	0.07395	3.92037	0.14460	0.15905	21.12606	0.00075	0.05702	0.08882
%RSD	0.82230	2.59459	0.62082	6.01337	3.16903	0.17305	278.92933	6.48790	1.31866

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	7.46671	0.00545	0.47498	0.07790	0.25531	0.00650	0.94246	0.29623	0.36066
#2	7.34983	0.00464	0.47500	0.08200	0.24949	0.00717	0.96128	0.29741	0.36437
Mean	7.40827	0.00505	0.47499	0.07995	0.25240	0.00684	0.95187	0.29682	0.36251
%RSD	1.11566	11.38281	0.00348	3.62470	1.63305	6.84597	1.39806	0.28179	0.72355

	Zr ppm	Pb calc	Se calc
#1	0.05420	0.15379	0.10482
#2	0.05337	0.15590	0.10860
Mean	0.05379	0.15485	0.10671
%RSD	1.08539	0.96741	2.50676

#1	0.05158	0.15457	0.07855	UNDGREEN
#2	0.05222	0.15391	0.07791	
Mean	0.05190	0.15424	0.07823	
%RSD	0.85898	0.30229	0.57617	

Method : Paragon File : 111118A
 SampleId1 : 1111160-9 SampleId2 :
 Analysis commenced : 11/18/2011 16:55:50
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:37
 [SAMPLE]
 Position : TUBE45

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00167	26.14060	0.04646	-0.00057	0.12161	0.00369	0.00017	110.77820	-0.00047
#2	-0.00172	26.04059	0.04583	-0.00095	0.12178	0.00362	-0.00069	110.56376	-0.00116
Mean	-0.00170	26.09060	0.04614	-0.00076	0.12169	0.00366	-0.00026	110.67098	-0.00082
%RSD	2.29979	0.27104	0.96896	35.37424	0.09694	1.36270	236.50325	0.13701	59.24305

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.01333	0.01124	0.01870	73.36245	4.19650	0.03588	11.56117	1.63635	0.00547
#2	0.01339	0.01139	0.01889	73.35497	4.16890	0.03570	11.53187	1.63569	0.00661
Mean	0.01336	0.01131	0.01880	73.35871	4.18270	0.03579	11.54652	1.63602	0.00604
%RSD	0.31057	0.98269	0.68590	0.00721	0.46665	0.35445	0.17943	0.02847	13.41212

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	0.36378	0.01057	1.45631	0.11008	0.11627	35.81899	-0.00227	0.08019	0.09433
#2	0.35656	0.01070	1.44713	0.11226	0.11481	35.94004	-0.00091	0.07514	0.09186
Mean	0.36017	0.01063	1.45172	0.11117	0.11554	35.87952	-0.00159	0.07767	0.09310
%RSD	1.41669	0.90175	0.44691	1.38442	0.89638	0.23856	60.23263	4.59746	1.87907

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	4.59245	0.00426	0.34469	0.02833	0.22479	-0.00015	3.46827	0.55782	0.10064
#2	4.49924	0.00507	0.34452	0.02877	0.22972	-0.00025	3.46759	0.55725	0.09963
Mean	4.54584	0.00467	0.34460	0.02855	0.22725	-0.00020	3.46793	0.55753	0.10014
%RSD	1.44984	12.32636	0.03583	1.09509	1.53507	36.27818	0.01391	0.07314	0.71266

	Zr ppm	Pb calc	Se calc
#1	0.05866	0.11421	0.08962
#2	0.05955	0.11396	0.08629
Mean	0.05911	0.11408	0.08796
%RSD	1.05968	0.15630	2.67840

Method : Paragon File : 111118A
 SampleId1 : 1111160-10 SampleId2 :
 Analysis commenced : 11/18/2011 16:57:39

Printed : 11/21/2011 12:55:37
 [SAMPLE]

Dilution ratio : 1.00000 to 1.00000 Tray :

Position : TUBE46

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00119	31.47412	0.04277	-0.00004	0.12841	0.00414	0.00633	71.02668	0.00091
#2	-0.00146	31.50516	0.04730	-0.00080	0.12862	0.00416	0.00375	71.13491	0.00170
Mean	-0.00132	31.48964	0.04504	-0.00042	0.12851	0.00415	0.00504	71.08080	0.00130
%RSD	14.52470	0.06970	7.11471	128.69022	0.11475	0.30599	36.31019	0.10766	42.89964

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.01418	0.01362	0.04088	79.86209	4.90526	0.03765	11.77801	1.29149	0.01275
#2	0.01424	0.01408	0.04105	79.94117	4.91003	0.03772	11.80641	1.29299	0.01128
Mean	0.01421	0.01385	0.04097	79.90163	4.90764	0.03768	11.79221	1.29224	0.01202
%RSD	0.29794	2.36349	0.29449	0.06998	0.06876	0.11882	0.17031	0.08198	8.66991

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	0.06101	0.01199	1.93638	0.21269	0.21402	23.41279	-0.00260	0.08296	0.09139
#2	0.06085	0.01175	1.93477	0.21298	0.20791	23.54230	-0.00421	0.07615	0.09081
Mean	0.06093	0.01187	1.93558	0.21283	0.21096	23.47754	-0.00340	0.07956	0.09110
%RSD	0.19271	1.41358	0.05882	0.09842	2.04974	0.39006	33.43479	6.05778	0.45093

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	4.84885	0.00386	0.19495	0.03533	0.21642	0.00442	2.99914	0.57486	0.45748
#2	4.84539	0.00467	0.19525	0.02963	0.22081	0.00916	3.01352	0.57549	0.45748
Mean	4.84712	0.00427	0.19510	0.03248	0.21862	0.00679	3.00633	0.57518	0.45748
%RSD	0.05057	13.49112	0.10936	12.41996	1.41875	49.40603	0.33825	0.07766	0.00000

	Zr ppm	Pb calc	Se calc
#1	0.05966	0.21358	0.08859
#2	0.05992	0.20960	0.08593
Mean	0.05979	0.21159	0.08726
%RSD	0.30695	1.33019	2.15322

Method : Paragon File : 111118A
 SampleId1 : 111160-11 SampleId2 :
 Analysis commenced : 11/18/2011 16:59:28
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:37
 [SAMPLE]

Position : TUBE47

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00121	29.20277	0.04203	-0.00072	0.12353	0.00394	0.00514	74.74704	0.00000
#2	-0.00276	29.06013	0.03139	-0.00057	0.12378	0.00387	-0.00596	73.34146	-0.00035

Mean	-0.00198	29.13145	0.03671	-0.00065	0.12365	0.00390	-0.00041	74.04425	-0.00018
%RSD	55.24540	0.34622	20.49811	16.64828	0.14310	1.31541	1920.17776	1.34230	138.02190
	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	0.01397	0.01378	0.02667	77.98809	4.70810	0.03520	11.00817	1.31144	0.00948
#2	0.01217	0.01226	0.02569	76.87817	4.69203	0.03514	10.91354	1.29430	0.00882
Mean	0.01307	0.01302	0.02618	77.43313	4.70007	0.03517	10.96085	1.30287	0.00915
%RSD	9.74375	8.28561	2.65474	1.01356	0.24179	0.12023	0.61046	0.93016	5.05943
	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	0.05642	0.01148	1.86555	0.14990	0.14905	24.32937	-0.00287	0.07028	0.09315
#2	0.05642	0.00931	1.86210	0.14005	0.15291	24.20949	-0.00641	0.07317	0.08832
Mean	0.05642	0.01040	1.86383	0.14498	0.15098	24.26943	-0.00464	0.07173	0.09073
%RSD	0.00000	14.75740	0.13084	4.80812	1.80908	0.34927	53.91949	2.84944	3.76266
	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	4.23358	0.00349	0.19357	0.05135	0.18018	0.00384	2.80934	0.55001	0.15684
#2	4.11542	0.00512	0.19328	0.04096	0.18621	0.00296	2.78741	0.54347	0.15246
Mean	4.17450	0.00431	0.19343	0.04616	0.18319	0.00340	2.79838	0.54674	0.15465
%RSD	2.00156	26.77661	0.10606	15.91666	2.32629	18.16513	0.55402	0.84609	2.00064
	Zr	Pb	Se						
	ppm	calc	calc						
#1	0.05871	0.14933	0.08553						
#2	0.05849	0.14863	0.08328						
Mean	0.05860	0.14898	0.08440						
%RSD	0.27081	0.33523	1.89159						

Method : Paragon File : 111118A
SampleId1 : 1111160-12 SampleId2 :
Analysis commenced : 11/18/2011 17:01:18
Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:37
[SAMPLE]

Position : TUBE48

Final concentrations

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00233	33.77810	0.05499	0.00103	0.21935	0.00566	0.00384	143.06953	-0.00082
#2	-0.00276	33.90952	0.05478	0.00141	0.22035	0.00567	-0.00240	142.15971	-0.00097
Mean	-0.00254	33.84381	0.05489	0.00122	0.21985	0.00566	0.00072	142.61462	-0.00089
%RSD	12.05570	0.27460	0.27155	22.08974	0.32233	0.11192	609.95569	0.45111	11.96430
	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	0.01721	0.01770	0.02387	92.42464	5.31002	0.04939	15.03855	2.13467	0.01455
#2	0.01653	0.01759	0.02321	92.06575	5.31429	0.04955	15.08372	2.12956	0.01496
Mean	0.01687	0.01764	0.02354	92.24519	5.31215	0.04947	15.06114	2.13212	0.01476

%RSD	2.86842	0.42191	1.96009	0.27511	0.05687	0.22119	0.21209	0.16966	1.96089
	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	0.95302	0.01738	1.71019	0.16648	0.16920	37.13484	-0.00018	0.07428	0.07964
#2	0.95888	0.01528	1.69366	0.16286	0.16860	37.02677	-0.00140	0.07295	0.08706
Mean	0.95595	0.01633	1.70192	0.16467	0.16890	37.08080	-0.00079	0.07361	0.08335
%RSD	0.43351	9.10224	0.68715	1.55488	0.25187	0.20609	109.70184	1.27729	6.30204
	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	5.39210	0.00834	0.39189	0.08434	0.24205	0.00545	7.35562	0.87510	0.12486
#2	5.42925	0.00588	0.39292	0.07104	0.24091	-0.00268	7.37652	0.87140	0.12587
Mean	5.41068	0.00711	0.39240	0.07769	0.24148	0.00138	7.36607	0.87325	0.12537
%RSD	0.48555	24.43700	0.18689	12.11210	0.33496	415.50827	0.20063	0.29918	0.56935
	Zr	Pb	Se						
	ppm	calc	calc						
#1	0.08002	0.16830	0.07785						
#2	0.08044	0.16669	0.08236						
Mean	0.08023	0.16749	0.08011						
%RSD	0.37141	0.67846	3.98281						

Method : Paragon

File : 111118A

Printed : 11/21/2011 12:55:37

SampleId1 : 1111160-13

SampleId2 :

[SAMPLE]

Analysis commenced : 11/18/2011 17:03:08

Dilution ratio : 1.00000 to 1.00000 Tray :

Position : TUBE49

Final concentrations

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00169	45.35533	0.05162	-0.00492	0.18528	0.00385	0.00598	82.35010	-0.00055
#2	-0.00142	45.28153	0.04825	-0.00423	0.18620	0.00379	0.00285	82.32042	-0.00052
Mean	-0.00156	45.31843	0.04994	-0.00458	0.18574	0.00382	0.00442	82.33526	-0.00054
%RSD	12.30295	0.11515	4.77543	10.60746	0.34959	0.97315	50.11259	0.02548	3.04740
	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	0.01840	0.01750	0.02683	96.16483	5.55710	0.05418	18.25716	1.14715	0.00080
#2	0.01800	0.01723	0.02757	96.24619	5.54554	0.05410	18.23453	1.14865	0.00015
Mean	0.01820	0.01736	0.02720	96.20551	5.55132	0.05414	18.24584	1.14790	0.00048
%RSD	1.56617	1.11541	1.92208	0.05980	0.14730	0.11023	0.08770	0.09210	97.33880
	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	0.45063	0.01457	2.07996	0.09948	0.10269	22.96285	-0.00078	0.07479	0.08414
#2	0.45130	0.01494	2.07996	0.09777	0.10364	22.99198	-0.00274	0.06479	0.08092
Mean	0.45096	0.01475	2.07996	0.09862	0.10316	22.97741	-0.00176	0.06979	0.08253
%RSD	0.10453	1.78747	0.00000	1.22114	0.65048	0.08964	78.74005	10.12794	2.76090

ted: 11/21/2011 12:56:07 User: MIKE LUNDGREEN

	Si ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	3.37609	0.00517	0.52916	0.04748	0.14427	0.00502	1.66040	0.21236
#2	3.44973	0.00804	0.53063	0.04314	0.14024	0.00475	1.64454	0.21250
Mean	3.41291	0.00661	0.52989	0.04531	0.14226	0.00489	1.65247	0.21243
%RSD	1.52582	30.72917	0.19650	6.76776	2.00184	3.99728	0.67852	0.93454

	Zr ppm	Pb calc	Se calc
#1	0.04103	0.10162	0.08103
#2	0.04126	0.10168	0.07555
Mean	0.04115	0.10165	0.07829
%RSD	0.38485	0.04579	4.94780

Method : Paragon

File : 111118A

Printed : 11/21/2011 12:55:37

SampleId1 : 1111160-14

SampleId2 :

[SAMPLE]

Analysis commenced : 11/18/2011 17:04:58

Dilution ratio : 1.00000 to 1.00000 Tray :

Position : TUBE50

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	0.00222	69.45962	0.12660	0.00530	0.44958	0.00547	0.01069	133.81315	0.04647
#2	0.00311	69.16487	0.12459	0.00683	0.44749	0.00549	0.00600	133.97561	0.04805
Mean	0.00266	69.31225	0.12559	0.00606	0.44854	0.00548	0.00835	133.89438	0.04726
%RSD	23.60698	0.30069	1.12861	17.78785	0.33006	0.25950	39.70788	0.08579	2.36774

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.04209	0.04534	0.62044	166.00539	21.60198	0.07450	28.13571	2.92019	0.00252
#2	0.04181	0.04615	0.61734	166.15915	21.44954	0.07392	28.06104	2.92086	0.00440
Mean	0.04195	0.04574	0.61889	166.08227	21.52576	0.07421	28.09838	2.92052	0.00346
%RSD	0.47205	1.26124	0.35352	0.06546	0.50075	0.55926	0.18792	0.01623	38.43783

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	0.36272	0.06649	3.95293	4.76942	4.77162	65.00930	0.00360	0.04752	0.07938
#2	0.35734	0.06774	3.98131	4.76261	4.75154	65.07630	0.00238	0.05520	0.07967
Mean	0.36003	0.06711	3.96712	4.76602	4.76158	65.04280	0.00299	0.05136	0.07952
%RSD	1.05747	1.32215	0.50585	0.10103	0.29827	0.07284	28.77836	10.57658	0.25504

	Si ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	7.33690	0.00382	0.35043	0.04162	0.24826	0.00646	0.88952	0.33463
#2	7.33614	0.00628	0.34942	0.04564	0.24912	0.00973	0.88942	0.33483
Mean	7.33652	0.00505	0.34992	0.04363	0.24869	0.00809	0.88947	0.33473
%RSD	0.00732	34.39005	0.20469	6.50338	0.24324	28.52423	0.00832	0.04094

	Zr ppm	Pb calc	SeUNDGREEN calc
#1	0.03212	4.77089	0.06877
#2	0.03159	4.75523	0.07152
Mean	0.03186	4.76306	0.07015
%RSD	1.18366	0.23255	2.77178

Method : Paragon File : 111118A
SampleId1 : CCV SampleId2 :
Analysis commenced : 11/18/2011 17:07:28
Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:38
[CV]

Position : STD6

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	0.19768	52.97467	0.51713	1.01986	1.03832	0.47702	0.53651	48.02138	0.50121
#2	0.19738	53.12295	0.51268	1.01986	1.03959	0.47609	0.54223	47.86416	0.50169
Mean	0.19753	53.04881	0.51491	1.01986	1.03896	0.47655	0.53937	47.94277	0.50145
%RSD	0.10867	0.19765	0.61199	0.00000	0.08611	0.13902	0.74958	0.23189	0.06708

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.48193	0.96819	1.04478	19.97463	49.73942	0.52828	50.28377	0.97337	0.98511
#2	0.48180	0.96671	1.04697	19.92971	49.80265	0.52948	50.32160	0.97066	0.98725
Mean	0.48186	0.96745	1.04587	19.95217	49.77104	0.52888	50.30269	0.97201	0.98618
%RSD	0.01989	0.10801	0.14823	0.15921	0.08982	0.16019	0.05318	0.19666	0.15358

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	49.38413	0.99403	5.03730	0.99383	0.99244	5.20839	0.50790	1.05368	1.04601
#2	49.50625	0.99158	5.06491	0.99261	0.99311	5.20520	0.50273	1.04745	1.04135
Mean	49.44519	0.99281	5.05111	0.99322	0.99277	5.20679	0.50532	1.05056	1.04368
%RSD	0.17464	0.17476	0.38655	0.08674	0.04767	0.04328	0.72365	0.41972	0.31560

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	5.02826	1.04824	0.51058	0.31001	0.48580	0.52385	5.03680	0.48389	0.94323
#2	5.03999	1.05401	0.51090	0.29633	0.48534	0.53124	5.02858	0.48244	0.93441
Mean	5.03412	1.05113	0.51074	0.30317	0.48557	0.52755	5.03269	0.48317	0.93882
%RSD	0.16475	0.38776	0.04367	3.19026	0.06668	0.99094	0.11555	0.21162	0.66386

	Zr ppm	Pb calc	Se calc
#1	0.99169	0.99290	1.04856
#2	0.99045	0.99294	1.04338
Mean	0.99107	0.99292	1.04597
%RSD	0.08848	0.00290	0.35042

Method : Paragon File : 111118A

Printed : 11/21/2011 12:55:38

SampleId1 : CCB
 Analysis commenced : 11/18/2011 17:09:24
 Dilution ratio : 1.00000 to 1.00000 Tray :

[CB]
 Position : STD2

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00082	0.04519	-0.00305	-0.00538	-0.00067	0.00039	-0.00088	-0.02575	-0.00044
#2	-0.00015	0.04092	-0.00337	-0.00561	-0.00063	0.00031	0.00137	-0.03842	-0.00072
Mean	-0.00048	0.04306	-0.00321	-0.00549	-0.00065	0.00035	0.00024	-0.03208	-0.00058
%RSD	98.48051	7.00945	6.95584	2.94647	4.55163	14.70488	653.25791	27.91920	34.51117

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00102	-0.00079	-0.00129	0.02371	-0.23869	-0.00172	-0.02782	0.00006	0.00007
#2	-0.00075	-0.00023	-0.00121	0.01218	-0.23644	-0.00173	-0.02737	-0.00021	-0.00108
Mean	-0.00088	-0.00051	-0.00125	0.01794	-0.23757	-0.00172	-0.02759	-0.00007	-0.00051
%RSD	22.02499	77.13104	4.62097	45.46327	0.66829	0.14443	1.14699	260.64711	159.96645

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	-0.15901	-0.00005	-0.00318	-0.00099	0.00096	-0.02878	-0.00292	0.00369	0.00275
#2	-0.16166	-0.00099	-0.00955	-0.00341	0.00000	-0.02560	-0.00270	0.00749	0.00044
Mean	-0.16033	-0.00052	-0.00636	-0.00220	0.00048	-0.02719	-0.00281	0.00559	0.00159
%RSD	1.16934	129.12518	70.80503	77.63874	140.84081	8.25007	5.77293	48.03077	102.09358

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	-0.01546	-0.00244	-0.00153	0.00092	-0.00271	-0.00426	-0.04121	-0.00074	0.00010
#2	-0.01511	-0.00776	-0.00158	0.00470	-0.00272	0.00294	-0.02953	-0.00083	0.00044
Mean	-0.01528	-0.00510	-0.00155	0.00281	-0.00272	-0.00066	-0.03537	-0.00078	0.00027
%RSD	1.64901	73.80928	2.10349	95.25921	0.25882	773.78443	23.35015	7.57168	88.30749

	Zr ppm	Pb calc	Se calc
#1	0.00037	0.00031	0.00306
#2	0.00034	-0.00113	0.00279
Mean	0.00036	-0.00041	0.00292
%RSD	6.14503	247.12388	6.57023

Method : Paragon File : 111118A
 SampleId1 : 1111160-15 SampleId2 :
 Analysis commenced : 11/18/2011 17:11:19
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:38
 [SAMPLE]
 Position : TUBE51

Final concentrations

Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
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#1	-0.00178	145.24612	0.05552	0.00858	1.03837	0.00894	0.01061	151.47125	0.00191
#2	-0.00179	145.53452	0.05689	0.00858	1.04309	0.00891	0.00715	150.74737	0.00163
Mean	-0.00179	145.39032	0.05621	0.00858	1.04073	0.00893	0.00888	151.10931	0.00177
%RSD	0.44840	0.14026	1.72373	0.00000	0.32092	0.22242	27.52731	0.33873	11.05479

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	0.06573	0.10511	0.17042	205.53195	43.76642	0.15640	48.69792	2.45113	0.00080
#2	0.06477	0.10391	0.17095	204.71396	43.89409	0.15690	48.68455	2.44761	0.00121
Mean	0.06525	0.10451	0.17069	205.12295	43.83025	0.15665	48.69123	2.44937	0.00101
%RSD	1.04327	0.81268	0.22096	0.28198	0.20596	0.22479	0.01941	0.10163	28.71738

	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	ppm	ppm							
#1	0.85728	0.13406	4.80393	0.25645	0.26904	4.97575	-0.00120	-0.03567	0.02920
#2	0.85661	0.13066	4.83337	0.25395	0.26920	4.96938	0.00151	-0.01146	0.02784
Mean	0.85695	0.13236	4.81865	0.25520	0.26912	4.97256	0.00016	-0.02357	0.02852
%RSD	0.05522	1.81248	0.43213	0.69224	0.04198	0.09062	1218.90524	72.63249	3.36763

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	10.21297	0.01073	0.68607	0.10642	0.29910	0.01056	0.20472	0.21062	0.62569
#2	10.24066	0.01236	0.68965	0.10325	0.30169	0.00913	0.22039	0.20997	0.62704
Mean	10.22681	0.01155	0.68786	0.10483	0.30039	0.00984	0.21256	0.21029	0.62637
%RSD	0.19145	10.01695	0.36881	2.13728	0.61123	10.28724	5.21060	0.21857	0.15264

	Zr	Pb	Se
	ppm	calc	calc
#1	0.04386	0.26485	0.00760
#2	0.04396	0.26412	0.01475
Mean	0.04391	0.26448	0.01118
%RSD	0.16897	0.19394	45.26861

Method : Paragon File : 111118A
 SampleId1 : 1111040-1 100X SampleId2 :
 Analysis commenced : 11/18/2011 17:13:10
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:38
 [SAMPLE]

Position : TUBE52

Final concentrations

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00098	0.04634	-0.00316	0.29236	0.32724	0.00006	-0.00123	61.34690	-0.00096
#2	-0.00103	0.04029	-0.00063	0.29328	0.32841	0.00006	-0.00487	61.03460	-0.00071
Mean	-0.00100	0.04332	-0.00190	0.29282	0.32782	0.00006	-0.00305	61.19075	-0.00083
%RSD	3.56876	9.87758	94.29978	0.22130	0.25253	7.33487	84.41867	0.36088	21.29711

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00097	-0.00076	-0.00130	3.57100	4.76963	0.18542	5.46954	0.06490	-0.00141

#2	-0.00022	-0.00158	-0.00202	3.56195	4.78821	0.18641	5.48436	0.06499	-0.00182
Mean	-0.00059	-0.00117	-0.00166	3.56648	4.77892	0.18591	5.47695	0.06495	-0.00161
%RSD	90.20685	49.15952	30.85389	0.17925	0.27498	0.37454	0.19133	0.10018	17.95728

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	189.55069	-0.00082	0.00228	-0.00143	-0.00210	0.27582	-0.00257	-0.00404	0.00142
#2	189.01743	-0.00008	0.00297	-0.00262	0.00267	0.27582	0.00062	-0.00429	0.00074
Mean	189.28406	-0.00045	0.00262	-0.00203	0.00028	0.27582	-0.00098	-0.00416	0.00108
%RSD	0.19921	116.67399	18.38614	41.39369	1183.44179	0.00000	231.14450	4.30359	44.81030

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	0.19057	-0.00776	5.14440	-0.00467	-0.00336	0.00284	-0.03332	-0.00112	0.00279
#2	0.19512	-0.00039	5.15164	-0.00629	-0.00338	0.00333	-0.03606	-0.00149	0.00279
Mean	0.19285	-0.00408	5.14802	-0.00548	-0.00337	0.00308	-0.03469	-0.00130	0.00279
%RSD	1.66780	127.88998	0.09947	20.83012	0.41753	11.34911	5.58446	20.06162	0.00000

	Zr ppm	Pb calc	Se calc
#1	-0.00013	-0.00188	-0.00040
#2	-0.00005	0.00091	-0.00094
Mean	-0.00009	-0.00048	-0.00067
%RSD	59.97030	406.55188	57.20293

Method : Paragon File : 111118A
 SampleId1 : 1111040-3 100X SampleId2 :
 Analysis commenced : 11/18/2011 17:15:00
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:38
 [SAMPLE]
 Position : TUBE53

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00014	0.01913	-0.00242	0.48565	0.25827	0.00004	-0.00227	101.86143	-0.00081
#2	-0.00004	0.00412	-0.00716	0.49084	0.25865	0.00000	-0.00331	101.67614	-0.00118
Mean	-0.00009	0.01163	-0.00479	0.48824	0.25846	0.00002	-0.00279	101.76878	-0.00099
%RSD	78.81356	91.29999	69.93753	0.75265	0.10287	112.62863	26.27025	0.12875	26.27818

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00031	-0.00126	-0.00193	0.98525	8.77651	0.35610	9.56591	0.04576	-0.00239
#2	-0.00031	-0.00130	-0.00139	0.97339	8.77651	0.35617	9.55871	0.04576	-0.00149
Mean	-0.00031	-0.00128	-0.00166	0.97932	8.77651	0.35614	9.56231	0.04576	-0.00194
%RSD	0.08577	1.91225	22.98122	0.85652	0.00000	0.01385	0.05327	0.00000	32.83506

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	283.85930	-0.00127	-0.04435	-0.00063	-0.00049	0.57733	-0.00049	-0.00500	-0.00183
#2	282.47041	-0.00110	-0.03889	-0.00176	-0.00252	0.57098	-0.00293	-0.01016	-0.00328

Mean	283.16485	-0.00118	-0.04162	-0.00119	-0.00150	0.57416	-0.00171	-0.00758	-0.00256
%RSD	0.34683	10.14987	9.27434	67.34952	95.18731	0.78184	100.83083	48.18918	40.14599
	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	0.15673	-0.00121	8.95142	-0.01019	-0.00342	-0.00415	-0.03568	-0.00072	0.01187
#2	0.15458	-0.00531	8.96028	-0.00730	-0.00335	-0.00265	-0.02950	-0.00048	0.01153
Mean	0.15565	-0.00326	8.95585	-0.00874	-0.00338	-0.00340	-0.03259	-0.00060	0.01170
%RSD	0.97777	88.92082	0.06994	23.38427	1.45493	31.18375	13.42416	28.72282	2.03198
	Zr	Pb	Se						
	ppm	calc	calc						
#1	0.00046	-0.00054	-0.00288						
#2	-0.00001	-0.00226	-0.00557						
Mean	0.00022	-0.00140	-0.00423						
%RSD	145.06083	87.28466	44.94758						

Method : Paragon File : 111118A
 SampleId1 : 1111040-4 100X SampleId2 :
 Analysis commenced : 11/18/2011 17:16:50
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:39
 [SAMPLE]

Position : TUBE54

Final concentrations

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00128	0.13876	-0.00200	0.42528	2.15054	0.00008	0.00119	104.16855	-0.00123
#2	-0.00050	0.14590	0.00169	0.42383	2.14896	0.00006	-0.00522	104.44303	-0.00043
Mean	-0.00089	0.14233	-0.00016	0.42455	2.14975	0.00007	-0.00202	104.30579	-0.00083
%RSD	61.73292	3.54803	1654.30303	0.24179	0.05200	20.00935	224.81065	0.18607	67.59902
	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00090	-0.00198	-0.00256	1.31255	11.36887	0.47461	9.75051	0.03923	-0.00198
#2	0.00027	-0.00157	-0.00175	1.31928	11.36254	0.47363	9.76492	0.03951	-0.00067
Mean	-0.00031	-0.00178	-0.00215	1.31592	11.36570	0.47412	9.75772	0.03937	-0.00133
%RSD	262.60756	16.04637	26.65451	0.36150	0.03940	0.14524	0.10442	0.49556	69.88715
	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	280.58842	-0.00201	-0.07004	-0.00343	0.00214	0.00929	-0.00354	-0.01338	-0.00381
#2	280.23354	-0.00062	-0.08210	0.00013	0.00115	0.01247	-0.00194	0.00076	-0.00304
Mean	280.41098	-0.00132	-0.07607	-0.00165	0.00165	0.01088	-0.00274	-0.00631	-0.00342
%RSD	0.08949	74.65604	11.20261	152.75881	42.67649	20.62038	41.22384	158.48665	15.85931
	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	0.03946	-0.00776	13.71544	-0.00991	-0.00335	0.00308	-0.05170	-0.00123	0.00581
#2	0.04072	0.00371	13.72955	-0.01049	-0.00331	-0.00191	-0.04278	-0.00086	0.00649
Mean	0.04009	-0.00203	13.72249	-0.01020	-0.00333	0.00058	-0.04724	-0.00104	0.00615

%RSD 2.21245 399.80026 0.07272 4.00429 0.84505 605.41132 13.35361 25.00820 7.72785

	Zr ppm	Pb calc	Se calc
#1	-0.00021	0.00029	-0.00699
#2	-0.00003	0.00081	-0.00177
Mean	-0.00012	0.00055	-0.00438
%RSD	104.84557	67.16092	84.19129

Method : Paragon File : 111118A
 SampleId1 : 1111040-5 100X SampleId2 :
 Analysis commenced : 11/18/2011 17:18:40
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:39
 [SAMPLE]

Position : TUBE55

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00045	0.23035	-0.00084	0.43582	1.19328	0.00020	-0.00036	91.17433	-0.00088
#2	-0.00031	0.22648	-0.00421	0.44056	1.19294	0.00018	-0.00261	91.40201	-0.00116
Mean	-0.00038	0.22842	-0.00253	0.43819	1.19311	0.00019	-0.00149	91.28817	-0.00102
%RSD	27.53549	1.19825	94.29463	0.76448	0.02003	10.16779	106.84452	0.17636	19.64277

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00052	-0.00177	-0.00166	0.98453	9.88435	0.39248	8.50148	0.03785	-0.00002
#2	-0.00024	-0.00115	-0.00112	0.97878	9.89219	0.39268	8.53613	0.03767	-0.00182
Mean	-0.00038	-0.00146	-0.00139	0.98166	9.88827	0.39258	8.51880	0.03776	-0.00092
%RSD	51.04503	30.20931	27.29479	0.41430	0.05605	0.03516	0.28757	0.34445	139.03891

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	271.47267	-0.00130	-0.07164	-0.00466	-0.00043	0.05688	-0.00328	-0.00714	-0.00336
#2	272.08496	-0.00096	-0.07618	-0.00152	-0.00126	0.04736	-0.00147	-0.00322	-0.00396
Mean	271.77881	-0.00113	-0.07391	-0.00309	-0.00084	0.05212	-0.00238	-0.00518	-0.00366
%RSD	0.15930	21.21325	4.35101	71.78157	69.19162	12.91220	54.04202	53.49563	11.53903

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	0.02568	-0.00531	10.41322	-0.00423	-0.00323	0.00475	-0.03362	-0.00101	0.02867
#2	0.02541	-0.00449	10.41646	-0.00962	-0.00335	0.00046	-0.02401	-0.00060	0.02666
Mean	0.02554	-0.00490	10.41484	-0.00692	-0.00329	0.00260	-0.02881	-0.00080	0.02766
%RSD	0.75907	11.83383	0.02203	55.07855	2.56581	116.68794	23.59612	35.93905	5.15570

	Zr ppm	Pb calc	Se calc
#1	-0.00011	-0.00184	-0.00462
#2	0.00031	-0.00135	-0.00371
Mean	0.00010	-0.00159	-0.00417
%RSD	300.65322	21.94570	15.38144

ted: 11/21/2011 12:56:07 User: MIKE LUNDGREEN
 Method : Paragon File : 111118A
 SampleId1 : 1111040-7 100X SampleId2 :
 Analysis commenced : 11/18/2011 17:20:30
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:39
 [SAMPLE]

Position : TUBE56

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00107	0.01801	-0.00295	0.29511	0.30203	0.00028	-0.00574	60.76929	-0.00075
#2	-0.00108	0.00954	-0.00158	0.29473	0.30148	0.00023	-0.00175	61.22272	-0.00095
Mean	-0.00108	0.01378	-0.00226	0.29492	0.30176	0.00026	-0.00375	60.99601	-0.00085
%RSD	0.47382	43.45920	42.76209	0.09155	0.12733	14.52748	75.31934	0.52565	16.72951

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00066	-0.00126	-0.00166	3.49673	4.84950	0.18888	5.46909	0.06398	-0.00034
#2	-0.00032	-0.00054	-0.00175	3.51456	4.84045	0.18838	5.48885	0.06453	-0.00133
Mean	-0.00049	-0.00090	-0.00170	3.50565	4.84498	0.18863	5.47897	0.06426	-0.00083
%RSD	49.07392	56.12129	4.08023	0.35963	0.13196	0.18785	0.25502	0.60752	83.28290

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	187.81909	-0.00015	0.00001	-0.00182	-0.00012	0.27900	-0.00354	-0.00202	-0.00064
#2	187.38916	-0.00076	-0.01296	-0.00333	-0.00055	0.27582	-0.00318	-0.00845	-0.00242
Mean	187.60412	-0.00045	-0.00647	-0.00258	-0.00033	0.27741	-0.00336	-0.00523	-0.00153
%RSD	0.16205	95.46051	141.60865	41.60824	92.86169	0.80888	7.40029	86.87118	82.39594

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	0.18415	-0.00408	5.16867	-0.00513	-0.00349	-0.00290	-0.04288	-0.00117	0.00548
#2	0.18363	-0.00531	5.17026	-0.00120	-0.00315	0.00031	-0.03329	-0.00121	0.00581
Mean	0.18389	-0.00469	5.16946	-0.00317	-0.00332	-0.00129	-0.03809	-0.00119	0.00565
%RSD	0.20145	18.52866	0.02181	87.73586	7.20444	175.56944	17.82262	2.21994	4.20889

	Zr ppm	Pb calc	Se calc
#1	-0.00032	-0.00068	-0.00110
#2	-0.00019	-0.00148	-0.00443
Mean	-0.00026	-0.00108	-0.00276
%RSD	36.44946	52.19640	85.21677

Method : Paragon File : 111118A
 SampleId1 : 1111051-1 100X SampleId2 :
 Analysis commenced : 11/18/2011 17:22:21
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:39
 [SAMPLE]

Position : TUBE57

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00092	0.13390	-0.00147	0.42360	1.36672	0.00036	-0.00366	88.46844	-0.00080
#2	-0.00081	0.12911	-0.00737	0.42123	1.36465	0.00033	-0.00072	88.47337	-0.00077
Mean	-0.00086	0.13151	-0.00442	0.42241	1.36568	0.00034	-0.00219	88.47090	-0.00078
%RSD	9.07451	2.57721	94.28760	0.39649	0.10741	5.86756	95.14277	0.00394	1.91888

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00007	0.00116	-0.00184	0.66701	9.87146	0.38325	8.01113	0.02783	-0.00214
#2	-0.00042	0.00047	-0.00183	0.66869	9.83935	0.38202	7.99044	0.02774	-0.00149
Mean	-0.00024	0.00081	-0.00183	0.66785	9.85541	0.38263	8.00079	0.02778	-0.00182
%RSD	101.40899	59.76276	0.20573	0.17719	0.23037	0.22743	0.18286	0.23404	25.49440

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	259.96284	0.02810	-0.05754	-0.00051	-0.00077	-0.00974	-0.00541	0.00323	-0.00028
#2	258.82942	0.02878	-0.06732	0.00013	-0.00085	0.00295	-0.00442	-0.00800	-0.00240
Mean	259.39613	0.02844	-0.06243	-0.00019	-0.00081	-0.00340	-0.00492	-0.00238	-0.00134
%RSD	0.30897	1.68639	11.07626	240.41436	6.96755	264.13786	14.27128	333.28715	112.34538

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	-0.00739	-0.00694	11.08723	-0.00767	-0.00357	-0.00379	-0.04439	-0.00090	0.00951
#2	-0.00624	-0.00367	11.06625	-0.00593	-0.00349	-0.00419	-0.05126	-0.00107	0.00750
Mean	-0.00681	-0.00531	11.07674	-0.00680	-0.00353	-0.00399	-0.04782	-0.00099	0.00850
%RSD	11.92753	43.67445	0.13395	18.08874	1.59480	7.14594	10.15249	11.70877	16.76949

	Zr ppm	Pb calc	Se calc
#1	0.00003	-0.00068	0.00089
#2	-0.00034	-0.00052	-0.00427
Mean	-0.00015	-0.00060	-0.00169
%RSD	173.74565	18.80468	216.26070

Method : Paragon File : 111118A
SampleId1 : 1111051-2 100X SampleId2 :
Analysis commenced : 11/18/2011 17:24:11
Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:39

[SAMPLE]

Position : TUBE58

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00087	0.13950	-0.00369	0.43529	1.39831	0.00042	-0.00297	90.47685	-0.00093
#2	-0.00004	0.14123	-0.00590	0.43368	1.39441	0.00039	0.00068	90.62915	-0.00090
Mean	-0.00045	0.14036	-0.00479	0.43448	1.39636	0.00040	-0.00115	90.55300	-0.00092
%RSD	129.13978	0.87171	32.63729	0.26114	0.19731	5.89790	224.92452	0.11893	2.64476

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
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	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00023	-0.00179	-0.00202	0.64681	10.21411	0.39513	8.19016	0.02755	-0.00100
#2	-0.00024	-0.00139	-0.00185	0.64920	10.12913	0.39247	8.18836	0.02774	-0.00149
Mean	-0.00023	-0.00159	-0.00193	0.64801	10.17162	0.39380	8.18926	0.02765	-0.00124
%RSD	1.68186	17.79642	6.29660	0.26084	0.59077	0.47876	0.01554	0.47042	27.93316

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	263.75998	-0.00320	-0.06823	-0.00486	-0.00064	-0.00340	-0.00427	-0.00421	-0.00224
#2	262.54731	-0.00266	-0.06641	-0.00125	0.00017	-0.00022	-0.00342	-0.00685	-0.00224
Mean	263.15364	-0.00293	-0.06732	-0.00305	-0.00024	-0.00181	-0.00385	-0.00553	-0.00224
%RSD	0.32585	13.10461	1.91097	83.38895	240.37241	123.87586	15.60729	33.78128	0.00940

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	-0.00612	-0.00121	11.36360	-0.00197	-0.00342	-0.00250	-0.04163	-0.00107	0.00817
#2	-0.00551	0.00043	11.33525	0.00034	-0.00337	0.00131	-0.02927	-0.00128	0.00850
Mean	-0.00582	-0.00039	11.34942	-0.00082	-0.00339	-0.00059	-0.03545	-0.00117	0.00834
%RSD	7.41895	297.03613	0.17659	200.02515	1.03619	455.99730	24.64406	12.28989	2.85126

	Zr ppm	Pb calc	Se calc
#1	-0.00040	-0.00204	-0.00289
#2	-0.00035	-0.00031	-0.00377
Mean	-0.00037	-0.00118	-0.00333
%RSD	9.59593	104.47325	18.64332

Method : Paragon File : 111118A
SampleId1 : CCV SampleId2 :
Analysis commenced : 11/18/2011 17:26:41
Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:39
[CV]

Position : STD6

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	0.20087	54.12374	0.53284	1.04835	1.06355	0.48795	0.55135	48.91819	0.51353
#2	0.20157	53.97806	0.52499	1.04712	1.05907	0.48930	0.55894	49.23628	0.51401
Mean	0.20122	54.05090	0.52891	1.04773	1.06131	0.48863	0.55515	49.07724	0.51377
%RSD	0.24687	0.19058	1.04993	0.08270	0.29791	0.19543	0.96699	0.45830	0.06603

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.49391	0.98513	1.07466	20.39272	50.84836	0.54284	51.37845	0.98931	1.01403
#2	0.49653	0.99155	1.06731	20.45619	50.53430	0.53881	51.31936	0.99332	1.01040
Mean	0.49522	0.98834	1.07098	20.42446	50.69133	0.54082	51.34891	0.99131	1.01222
%RSD	0.37418	0.45930	0.48550	0.21977	0.43809	0.52656	0.08137	0.28600	0.25326

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
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#1	50.09435	1.02317	5.16323	1.01411	1.01428	5.31994	0.51739	1.09177	1.05487
#2	49.87589	1.02529	5.16721	1.01669	1.01550	5.37732	0.51581	1.07074	1.06720
Mean	49.98512	1.02423	5.16522	1.01540	1.01489	5.34863	0.51660	1.08125	1.06104
%RSD	0.30903	0.14589	0.05449	0.17984	0.08511	0.75853	0.21691	1.37545	0.82153

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm								
#1	5.12760	1.07500	0.52273	0.31955	0.49287	0.55215	5.14590	0.49518	0.95679
#2	5.12343	1.07747	0.52124	0.32042	0.49324	0.54394	5.11352	0.49597	0.97340
Mean	5.12552	1.07623	0.52198	0.31999	0.49306	0.54804	5.12971	0.49558	0.96510
%RSD	0.05748	0.16228	0.20261	0.19220	0.05282	1.05937	0.44628	0.11309	1.21734

	Zr	Pb	Se
	ppm	calc	calc
#1	1.01463	1.01422	1.06716
#2	1.01482	1.01590	1.06838
Mean	1.01473	1.01506	1.06777
%RSD	0.01355	0.11666	0.08070

Method : Paragon

File : 111118A

Printed : 11/21/2011 12:55:40

SampleId1 : CCB

SampleId2 :

[CB]

Analysis commenced : 11/18/2011 17:28:36

Dilution ratio : 1.00000 to 1.00000 Tray :

Position : STD2

Final concentrations

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	0.00059	0.05648	-0.00105	-0.00492	-0.00071	0.00055	-0.00314	-0.04245	-0.00034
#2	-0.00004	0.04966	-0.00621	-0.00530	-0.00067	0.00052	0.00345	-0.04475	-0.00030
Mean	0.00027	0.05307	-0.00363	-0.00511	-0.00069	0.00053	0.00016	-0.04360	-0.00032
%RSD	163.60912	9.09784	100.43922	5.27729	4.27636	4.08594	2942.64662	3.73535	7.76385

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00061	-0.00073	-0.00121	0.00635	-0.25690	-0.00173	-0.02200	-0.00021	-0.00100
#2	0.00001	-0.00014	-0.00176	0.00516	-0.25465	-0.00172	-0.02871	-0.00030	-0.00042
Mean	-0.00030	-0.00044	-0.00148	0.00575	-0.25578	-0.00172	-0.02535	-0.00026	-0.00071
%RSD	146.30745	96.44739	26.10930	14.61689	0.62069	0.28916	18.72350	25.12931	56.96894

	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.15055	-0.00018	-0.01546	0.00045	0.00031	-0.03512	-0.00159	-0.00311	0.00036
#2	-0.15409	-0.00072	-0.00613	0.00118	-0.00257	-0.02878	-0.00110	-0.00816	-0.00407
Mean	-0.15232	-0.00045	-0.01080	0.00082	-0.00113	-0.03195	-0.00134	-0.00564	-0.00186
%RSD	1.64122	84.85378	61.08141	62.91980	179.67520	14.04249	25.72422	63.29128	168.61030

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.01838	-0.00531	-0.00129	0.00745	-0.00271	0.00184	-0.03227	-0.00038	0.00044

#2	-0.01662	-0.00039	-0.00140	0.00714	-0.00259	-0.00016	-0.02952	-0.00017	0.00010
Mean	-0.01750	-0.00285	-0.00135	0.00729	-0.00265	0.00084	-0.03090	-0.00028	0.00027
%RSD	7.13275	122.01143	6.07150	3.05100	3.18152	168.47277	6.28681	52.35072	88.30749

	Zr ppm	Pb calc	Se calc
#1	0.00027	0.00036	-0.00080
#2	0.00057	-0.00132	-0.00543
Mean	0.00042	-0.00048	-0.00312
%RSD	49.99971	245.42454	105.17693

Method : Paragon File : 111118A
 SampleId1 : IP111117-1LCS SampleId2 :
 Analysis commenced : 11/18/2011 17:49:44
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:40
 [SAMPLE]
 Position : TUBE1

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	0.08733	2.21258	1.98173	0.48450	2.07367	0.04906	-0.00511	36.28825	0.04627
#2	0.08764	2.20081	1.97826	0.48458	2.07299	0.04903	-0.00632	36.24001	0.04666
Mean	0.08749	2.20669	1.98000	0.48454	2.07333	0.04904	-0.00572	36.26413	0.04646
%RSD	0.24981	0.37709	0.12381	0.01115	0.02329	0.04075	15.00080	0.09406	0.58947

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.47697	0.18990	0.25783	1.01353	36.73147	0.49202	37.36527	0.48464	0.97819
#2	0.47517	0.18967	0.25737	1.01437	36.65040	0.49083	37.33414	0.48409	0.98066
Mean	0.47607	0.18979	0.25760	1.01395	36.69093	0.49142	37.34970	0.48437	0.97943
%RSD	0.26717	0.08341	0.12643	0.05851	0.15623	0.17257	0.05894	0.08108	0.17842

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	36.94842	0.50035	9.41827	0.48192	0.48661	9.74630	0.48939	1.94294	1.91177
#2	36.82128	0.49675	9.46929	0.48292	0.48833	9.73030	0.48173	1.95255	1.91725
Mean	36.88485	0.49855	9.44378	0.48242	0.48747	9.73830	0.48556	1.94774	1.91451
%RSD	0.24375	0.51105	0.38202	0.14635	0.24890	0.11617	1.11481	0.34909	0.20210

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	1.67459	0.51745	0.51140	-0.02707	0.47641	2.10771	10.12246	0.48715	0.46086
#2	1.67357	0.53223	0.51111	-0.03215	0.47657	2.08756	10.13004	0.48662	0.45951
Mean	1.67408	0.52484	0.51125	-0.02961	0.47649	2.09764	10.12625	0.48689	0.46018
%RSD	0.04339	1.99171	0.04039	12.13515	0.02363	0.67927	0.05294	0.07751	0.20745

	Zr ppm	Pb calc	Se calc
#1	1.00188	0.48505	1.92215
#2	1.00167	0.48653	1.92900

Mean 1.00178 0.48579 1.92558UNDGREEN
 %RSD 0.01503 0.21499 0.25161

Method : Paragon File : 111118A
 SampleId1 : 1110384-1 10X SampleId2 :
 Analysis commenced : 11/18/2011 17:51:31
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:40
 [SAMPLE]

Position : TUBE2

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	0.00627	3.95387	0.00411	-0.00545	0.23501	0.00088	-0.00089	10.60065	0.11497
#2	0.00632	3.95206	0.00895	-0.00492	0.23292	0.00082	-0.00005	10.56225	0.11490
Mean	0.00629	3.95297	0.00653	-0.00519	0.23396	0.00085	-0.00047	10.58145	0.11493
%RSD	0.58671	0.03233	52.46177	7.27954	0.63112	4.63949	126.25845	0.25659	0.04400

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.00425	0.00209	1.12797	18.87232	0.85904	-0.00009	1.45743	1.08625	0.00383
#2	0.00453	0.00228	1.11904	18.77280	0.85079	-0.00012	1.45116	1.08037	0.00514
Mean	0.00439	0.00218	1.12350	18.82256	0.85491	-0.00010	1.45429	1.08331	0.00449
%RSD	4.48415	6.07188	0.56198	0.37386	0.68191	21.51452	0.30494	0.38393	20.64141

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	-0.06523	0.00497	0.21808	5.28648	5.23069	0.22822	-0.00096	-0.00470	0.00026
#2	-0.06628	0.00365	0.22765	5.27026	5.23447	0.22505	-0.00022	-0.00469	0.00109
Mean	-0.06575	0.00431	0.22286	5.27837	5.23258	0.22664	-0.00059	-0.00469	0.00068
%RSD	1.12968	21.68605	3.03538	0.21738	0.05113	0.99004	88.98889	0.19385	87.08211

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	1.18920	-0.00412	0.03248	0.02426	0.03719	-0.00230	-0.03070	0.00782	5.86101
#2	1.23550	-0.00535	0.03230	0.02501	0.03441	0.00626	-0.02926	0.00764	5.84579
Mean	1.21235	-0.00474	0.03239	0.02463	0.03580	0.00198	-0.02998	0.00773	5.85340
%RSD	2.70042	18.29647	0.40398	2.15537	5.49804	305.59660	3.39860	1.67370	0.18379

	Zr ppm	Pb calc	Se calc
#1	0.00173	5.24927	-0.00139
#2	0.00146	5.24639	-0.00083
Mean	0.00160	5.24783	-0.00111
%RSD	11.85507	0.03881	35.53084

Method : Paragon File : 111118A
 SampleId1 : 1110384-2 10X SampleId2 :
 Analysis commenced : 11/18/2011 17:53:20
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:40
 [SAMPLE]

Position : TUBE3

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	0.00527	3.73566	0.01970	-0.00461	0.33117	0.00077	0.00438	13.21237	0.09004
#2	0.00481	3.73281	0.02075	-0.00667	0.33029	0.00078	0.00160	13.11170	0.08915
Mean	0.00504	3.73424	0.02022	-0.00564	0.33073	0.00077	0.00299	13.16203	0.08959
%RSD	6.38002	0.05388	3.68332	25.80144	0.18774	1.02243	65.75819	0.54083	0.70099

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.00517	0.00324	1.00862	17.53412	0.68442	0.00014	1.69084	0.95510	0.00629
#2	0.00399	0.00265	1.00745	17.43312	0.67968	0.00014	1.68143	0.95100	0.00481
Mean	0.00458	0.00295	1.00804	17.48362	0.68205	0.00014	1.68614	0.95305	0.00555
%RSD	18.13324	14.04634	0.08198	0.40846	0.49201	3.54260	0.39457	0.30423	18.76990

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	-0.09148	0.00467	0.33018	5.13675	4.82477	0.19967	-0.00034	-0.00793	0.00212
#2	-0.09237	0.00477	0.33998	5.11970	4.97816	0.20601	-0.00463	-0.00870	0.00227
Mean	-0.09193	0.00472	0.33508	5.12823	4.90146	0.20284	-0.00249	-0.00831	0.00219
%RSD	0.68027	1.52432	2.06823	0.23518	2.21292	2.21235	121.98946	6.47311	4.84379

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	1.03602	-0.00169	0.03547	0.02194	0.05548	-0.00037	-0.01194	0.00899	5.77930
#2	1.03946	0.00241	0.03528	0.01994	0.05737	-0.00342	-0.03178	0.00803	5.72026
Mean	1.03774	0.00036	0.03538	0.02094	0.05643	-0.00189	-0.02186	0.00851	5.74978
%RSD	0.23415	804.95375	0.36992	6.76543	2.36707	114.13398	64.18703	7.97900	0.72600

	Zr ppm	Pb calc	Se calc
#1	0.00060	4.92866	-0.00123
#2	0.00033	5.02529	-0.00138
Mean	0.00047	4.97698	-0.00131
%RSD	40.79161	1.37293	8.29785

Method : Paragon File : 111118A
 SampleId1 : 1110384-5 10X SampleId2 :
 Analysis commenced : 11/18/2011 17:55:10
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:40
 [SAMPLE]

Position : TUBE4

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	0.00402	2.23848	0.00874	0.06061	0.25832	0.00068	0.00098	0.41838	0.00133
#2	0.00361	2.24234	0.01401	0.06039	0.25773	0.00070	-0.00145	0.41578	0.00154
Mean	0.00381	2.24041	0.01137	0.06050	0.25802	0.00069	-0.00023	0.41708	0.00144
%RSD	7.63907	0.12183	32.73789	0.26753	0.16028	1.92678	733.14538	0.43964	10.43911

ted: 11/21/2011 12:56:07 User: MIKE LUNDGREEN

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	0.00351	0.01118	0.16278	15.83832	0.97972	-0.00095	1.31856	0.08100	0.01742
#2	0.00344	0.01122	0.16269	15.82398	0.97697	-0.00097	1.32036	0.08100	0.01783
Mean	0.00348	0.01120	0.16273	15.83115	0.97834	-0.00096	1.31946	0.08100	0.01762
%RSD	1.41250	0.23269	0.03603	0.06404	0.19866	1.55936	0.09602	0.00000	1.64215

	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	ppm	ppm	ppm						
#1	0.63389	0.01202	0.06326	2.63426	2.56871	0.08544	0.00016	-0.00963	0.00254
#2	0.63462	0.01097	0.06554	2.63928	2.56951	0.09496	-0.00474	-0.00800	-0.00138
Mean	0.63426	0.01150	0.06440	2.63677	2.56911	0.09020	-0.00229	-0.00882	0.00058
%RSD	0.08065	6.46318	2.49874	0.13441	0.02181	7.46207	151.33089	13.09867	477.60508

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	0.04596	-0.00461	0.01292	0.01416	0.10688	-0.00082	-0.02177	0.16505	0.44533
#2	0.04219	-0.00298	0.01293	0.00438	0.10682	0.00397	-0.03206	0.16488	0.44297
Mean	0.04407	-0.00380	0.01292	0.00927	0.10685	0.00158	-0.02691	0.16497	0.44415
%RSD	6.04870	30.52829	0.06325	74.53277	0.03948	214.74744	27.03318	0.07141	0.37609

	Zr	Pb	Se
	ppm	calc	calc
#1	0.00107	2.59054	-0.00151
#2	0.00152	2.59274	-0.00358
Mean	0.00130	2.59164	-0.00255
%RSD	24.75869	0.05996	57.46118

Method : Paragon File : 111118A
 SampleId1 : 1110384-6 10X SampleId2 :
 Analysis commenced : 11/18/2011 17:56:59
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:41

[SAMPLE]

Position : TUBE5

Final concentrations

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	0.00513	1.55980	0.01053	-0.00576	0.02116	0.00076	0.00385	0.79912	0.00451
#2	0.00471	1.55832	0.00790	-0.00599	0.02103	0.00072	0.00177	0.79076	0.00483
Mean	0.00492	1.55906	0.00922	-0.00587	0.02109	0.00074	0.00281	0.79494	0.00467
%RSD	5.97014	0.06727	20.20353	2.75512	0.41890	3.62048	52.23117	0.74373	4.89974

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	0.00339	0.00702	0.28918	15.05084	0.14360	-0.00133	0.85367	0.06941	0.02151
#2	0.00346	0.00721	0.29019	15.00369	0.12962	-0.00136	0.84964	0.06923	0.02127
Mean	0.00343	0.00711	0.28968	15.02726	0.13661	-0.00135	0.85166	0.06932	0.02139
%RSD	1.40151	1.88962	0.24484	0.22190	7.23488	1.48057	0.33462	0.18773	0.81185

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	-0.10420	0.00870	0.04506	2.29707	2.22501	0.15524	-0.00319	-0.00022	-0.00222
#2	-0.10519	0.00782	0.03732	2.28987	2.23135	0.16793	-0.00442	-0.01094	-0.00035
Mean	-0.10469	0.00826	0.04119	2.29347	2.22818	0.16159	-0.00381	-0.00558	-0.00129
%RSD	0.67189	7.54521	13.28146	0.22210	0.20117	5.55404	22.83134	135.94386	102.53587

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	0.48085	0.00034	0.01481	0.00559	0.07157	-0.00350	-0.03428	0.21369	0.43217
#2	0.49362	-0.00212	0.01478	0.00617	0.07190	0.00008	-0.03768	0.21425	0.43116
Mean	0.48724	-0.00089	0.01480	0.00588	0.07173	-0.00171	-0.03598	0.21397	0.43166
%RSD	1.85239	195.94924	0.16575	6.96026	0.32342	148.31381	6.68394	0.18655	0.16582

	Zr ppm	Pb calc	Se calc
#1	0.00011	2.24901	-0.00155
#2	0.00020	2.25084	-0.00388
Mean	0.00016	2.24992	-0.00271
%RSD	41.67641	0.05749	60.60101

Method : Paragon File : 111118A
SampleId1 : 1111160-3 5X SampleId2 :
Analysis commenced : 11/18/2011 17:58:48
Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:41
[SAMPLE]

Position : TUBE6

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00093	27.06003	0.00916	-0.00400	0.23651	0.00231	-0.00533	32.12065	-0.00060
#2	-0.00098	26.87005	0.01496	-0.00378	0.23467	0.00229	0.00074	31.97322	-0.00022
Mean	-0.00095	26.96504	0.01206	-0.00389	0.23559	0.00230	-0.00229	32.04693	-0.00041
%RSD	3.49553	0.49818	33.96756	4.15986	0.55156	0.76547	187.02532	0.32530	65.59328

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.01346	0.02052	0.02949	42.55526	6.87859	0.02558	10.14455	0.45484	0.00039
#2	0.01400	0.02125	0.02886	42.32067	6.81563	0.02533	10.07880	0.45271	-0.00018
Mean	0.01373	0.02089	0.02918	42.43797	6.84711	0.02545	10.11167	0.45378	0.00011
%RSD	2.79593	2.45502	1.52929	0.39088	0.65015	0.70385	0.45982	0.33163	377.40601

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	0.03207	0.02918	1.00522	0.02968	0.03375	0.89162	0.00139	-0.00898	0.00216
#2	0.02930	0.02945	1.00980	0.03221	0.03396	0.88527	-0.00083	-0.00568	0.00356
Mean	0.03068	0.02932	1.00751	0.03095	0.03385	0.88845	0.00028	-0.00733	0.00286
%RSD	6.37593	0.65427	0.32117	5.77589	0.44257	0.50540	559.25549	31.85988	34.63397

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
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	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	2.71647	0.00034	0.16151	0.02885	0.07478	0.00287	-0.00838	0.03630	0.11982
#2	2.72104	-0.00171	0.16013	0.02915	0.07715	0.00207	-0.01508	0.03584	0.11713
Mean	2.71876	-0.00069	0.16082	0.02900	0.07597	0.00247	-0.01173	0.03607	0.11847
%RSD	0.11886	211.04179	0.60682	0.73329	2.21176	22.94306	40.42253	0.89111	1.60657

	Zr ppm	Pb calc	Se calc
#1	0.01035	0.03239	-0.00155
#2	0.01026	0.03338	0.00048
Mean	0.01030	0.03289	-0.00053
%RSD	0.59074	2.11385	269.66387

Method : Paragon File : 111118A
 SampleId1 : 1111160-4 5X SampleId2 :
 Analysis commenced : 11/18/2011 18:00:37
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:41
 [SAMPLE]
 Position : TUBE7

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00102	26.57205	0.01453	-0.00561	0.22941	0.00232	0.00157	29.61108	-0.00089
#2	-0.00108	26.38725	0.01232	-0.00416	0.22808	0.00228	0.00279	29.57511	-0.00055
Mean	-0.00105	26.47965	0.01343	-0.00488	0.22874	0.00230	0.00218	29.59310	-0.00072
%RSD	3.85916	0.49350	11.64727	20.99380	0.41311	1.30852	39.46573	0.08593	33.57939

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.01314	0.02044	0.02778	41.72074	6.07667	0.02435	10.10177	0.39722	-0.00075
#2	0.01293	0.02081	0.02759	41.65111	6.02786	0.02423	10.10132	0.39703	-0.00018
Mean	0.01303	0.02062	0.02768	41.68593	6.05226	0.02429	10.10154	0.39713	-0.00047
%RSD	1.12943	1.27564	0.48075	0.11810	0.57018	0.36881	0.00315	0.03292	87.01338

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	-0.05616	0.02772	1.05465	0.03785	0.04237	0.84399	-0.00291	-0.01369	0.00276
#2	-0.05826	0.02708	1.04183	0.03902	0.04363	0.84082	-0.00046	-0.01140	0.00308
Mean	-0.05721	0.02740	1.04824	0.03843	0.04300	0.84241	-0.00168	-0.01255	0.00292
%RSD	2.59693	1.66253	0.86453	2.13884	2.08521	0.26650	103.05089	12.88257	7.90529

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	1.93774	-0.00292	0.13822	0.03045	0.06000	0.00110	-0.02360	0.03274	0.11847
#2	1.93912	0.00732	0.13746	0.03047	0.05994	0.00108	-0.01531	0.03305	0.11814
Mean	1.93843	0.00220	0.13784	0.03046	0.05997	0.00109	-0.01946	0.03290	0.11830
%RSD	0.05044	329.31773	0.39246	0.03718	0.08205	1.58787	30.11317	0.67445	0.20111

	Zr ppm	Pb calc	Se calc
#1	0.01035	0.03239	-0.00155
#2	0.01026	0.03338	0.00048
Mean	0.01030	0.03289	-0.00053
%RSD	0.59074	2.11385	269.66387

#1	0.01051	0.04086	-0.00272	UNDGREEN
#2	0.01039	0.04210	-0.00174	
Mean	0.01045	0.04148	-0.00223	
%RSD	0.81218	2.10176	31.04142	

Method : Paragon File : 111118A
 SampleId1 : 1111160-5 5X SampleId2 :
 Analysis commenced : 11/18/2011 18:02:26
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:41
 [SAMPLE]
 Position : TUBE8

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00076	24.63018	0.01590	-0.00393	0.24691	0.00233	0.00089	31.46749	-0.00072
#2	-0.00118	24.03878	0.00969	-0.00568	0.24127	0.00225	0.00158	30.84466	-0.00045
Mean	-0.00097	24.33448	0.01280	-0.00481	0.24409	0.00229	0.00123	31.15607	-0.00059
%RSD	30.16504	1.71848	34.33886	25.81698	1.63353	2.44443	39.66166	1.41355	32.72730

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.01461	0.02031	0.03150	44.24123	6.38188	0.02533	10.59770	0.45678	-0.00083
#2	0.01364	0.01987	0.03105	43.30996	6.21202	0.02469	10.33372	0.44846	0.00056
Mean	0.01412	0.02009	0.03128	43.77559	6.29695	0.02501	10.46571	0.45262	-0.00014
%RSD	4.86578	1.53283	1.01535	1.50428	1.90740	1.81100	1.78354	1.30098	711.93698

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	-0.01070	0.02749	1.08143	0.03132	0.03299	1.01545	-0.00070	-0.01171	0.00480
#2	-0.01380	0.02722	1.05717	0.03167	0.03620	1.00593	-0.00277	-0.00227	0.00018
Mean	-0.01225	0.02735	1.06930	0.03149	0.03459	1.01069	-0.00173	-0.00699	0.00249
%RSD	17.88362	0.70131	1.60439	0.78631	6.54732	0.66648	84.21843	95.49932	131.03824

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	1.82516	0.00077	0.15403	0.02836	0.05927	0.00477	-0.01776	0.03527	0.12184
#2	1.78011	0.00077	0.15026	0.02317	0.05950	0.00477	-0.02468	0.03342	0.11881
Mean	1.80263	0.00077	0.15214	0.02577	0.05938	0.00477	-0.02122	0.03434	0.12032
%RSD	1.76736	0.02456	1.75145	14.23911	0.27227	0.11030	23.04913	3.82481	1.77962

	Zr ppm	Pb calc	Se calc
#1	0.00969	0.03244	-0.00070
#2	0.01022	0.03469	-0.00063
Mean	0.00996	0.03356	-0.00067
%RSD	3.81967	4.74706	6.74210

Method : Paragon File : 111118A
 SampleId1 : 1111040-1 1000X SampleId2 :
 Analysis commenced : 11/18/2011 18:04:15

Printed : 11/21/2011 12:55:41
 [SAMPLE]

Dilution ratio : 1.00000 to 1.00000 Tray :

Position : TUBE9

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00165	0.01258	-0.00116	0.02247	0.03211	0.00025	-0.00314	6.09248	-0.00097
#2	-0.00029	0.01702	-0.00695	0.02231	0.03203	0.00022	-0.00228	6.07560	-0.00047
Mean	-0.00097	0.01480	-0.00405	0.02239	0.03207	0.00023	-0.00271	6.08404	-0.00072
%RSD	99.37966	21.19598	101.02360	0.48186	0.18371	9.38646	22.63371	0.19610	48.91014

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00118	-0.00164	-0.00257	0.35754	0.07746	0.01161	0.50263	0.00576	-0.00296
#2	-0.00104	-0.00148	-0.00211	0.35504	0.07870	0.01154	0.50263	0.00576	-0.00059
Mean	-0.00111	-0.00156	-0.00234	0.35629	0.07808	0.01158	0.50263	0.00576	-0.00178
%RSD	8.71615	7.24751	13.87989	0.49700	1.13009	0.47307	0.00000	0.00000	94.54801

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	19.05548	-0.00116	-0.00568	-0.00138	0.00094	-0.00657	-0.00441	-0.00594	-0.00042
#2	18.96144	-0.00164	-0.01341	-0.00390	-0.00283	-0.00340	-0.00452	-0.00367	-0.00153
Mean	19.00846	-0.00140	-0.00955	-0.00264	-0.00094	-0.00498	-0.00446	-0.00480	-0.00098
%RSD	0.34983	23.95040	57.29208	67.66885	283.15118	45.01508	1.64707	33.37108	80.14954

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	-0.00235	-0.00326	0.52608	0.00176	-0.00314	-0.00042	-0.04006	-0.00141	0.00010
#2	-0.00321	0.00002	0.52370	0.00248	-0.00297	0.00198	-0.04555	-0.00125	0.00044
Mean	-0.00278	-0.00162	0.52489	0.00212	-0.00305	0.00078	-0.04281	-0.00133	0.00027
%RSD	22.02110	143.08897	0.32113	23.97111	3.91296	217.21594	9.06977	8.65439	88.30749

	Zr ppm	Pb calc	Se calc
#1	-0.00070	0.00017	-0.00226
#2	-0.00063	-0.00318	-0.00224
Mean	-0.00066	-0.00151	-0.00225
%RSD	7.77645	157.53549	0.49994

Method : Paragon File : 111118A

Printed : 11/21/2011 12:55:41

SampleId1 : 1111040-3 1000X SampleId2 :

[SAMPLE]

Analysis commenced : 11/18/2011 18:06:04

Dilution ratio : 1.00000 to 1.00000 Tray :

Position : TUBE10

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00055	0.01120	-0.00042	0.04253	0.02574	0.00018	0.00015	10.41308	-0.00073
#2	-0.00123	0.00445	-0.00042	0.04429	0.02566	0.00015	-0.00245	10.39814	-0.00082

Mean	-0.00089	0.00783	-0.00042	0.04341	0.02570	0.00016	-0.00115	10.40561	-0.00077
%RSD	53.79845	60.97001	0.00000	2.85846	0.22926	10.78637	160.37681	0.10155	8.72917
	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm								
#1	-0.00085	-0.00154	-0.00193	0.08867	0.35004	0.02463	0.96294	0.00402	-0.00288
#2	-0.00064	-0.00145	-0.00221	0.08820	0.35079	0.02450	0.95667	0.00392	-0.00100
Mean	-0.00074	-0.00150	-0.00207	0.08843	0.35042	0.02456	0.95981	0.00397	-0.00194
%RSD	19.60451	4.30069	9.46627	0.38061	0.15114	0.36469	0.46190	1.63739	68.65520
	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	ppm								
#1	32.77284	-0.00011	-0.01319	0.00013	0.00074	0.00929	-0.00086	-0.00326	-0.00440
#2	32.62239	-0.00133	-0.00682	-0.00228	-0.00103	0.03150	-0.00329	0.00331	0.00063
Mean	32.69762	-0.00072	-0.01000	-0.00108	-0.00015	0.02040	-0.00208	0.00003	-0.00188
%RSD	0.32535	119.32511	45.03512	158.14388	849.64308	76.98926	82.86565	17033.79416	188.67400
	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm								
#1	-0.00601	-0.00285	0.94820	-0.00156	-0.00325	-0.00013	-0.03988	-0.00081	0.00145
#2	-0.00790	0.00002	0.94678	0.00402	-0.00308	-0.00123	-0.03439	-0.00122	0.00111
Mean	-0.00696	-0.00141	0.94749	0.00123	-0.00316	-0.00068	-0.03713	-0.00102	0.00128
%RSD	19.25859	143.34332	0.10644	321.23269	3.77769	114.20286	10.45975	28.45656	18.60459
	Zr	Pb	Se						
	ppm	calc	calc						
#1	-0.00028	0.00053	-0.00402						
#2	-0.00078	-0.00145	0.00152						
Mean	-0.00053	-0.00046	-0.00125						
%RSD	67.21095	306.33972	313.99259						

Method : Paragon File : l11118A
SampleId1 : CCV SampleId2 :
Analysis commenced : 11/18/2011 18:08:34
Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:42
[CV]

Position : STD6

Final concentrations

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	0.19949	53.27504	0.52191	1.03762	1.04549	0.48083	0.54607	48.38600	0.50586
#2	0.20008	53.16753	0.52223	1.03732	1.04191	0.48223	0.55228	48.65251	0.50939
Mean	0.19979	53.22129	0.52207	1.03747	1.04370	0.48153	0.54918	48.51925	0.50762
%RSD	0.20932	0.14284	0.04312	0.02088	0.24287	0.20509	0.80017	0.38841	0.49049
	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	0.48588	0.97390	1.05927	20.02923	49.90254	0.53083	50.61921	0.97579	0.99368
#2	0.48712	0.97666	1.05437	20.06669	49.73358	0.52883	50.65797	0.97765	0.99533
Mean	0.48650	0.97528	1.05682	20.04796	49.81806	0.52983	50.63859	0.97672	0.99450

%RSD	0.18020	0.19983	0.32790	0.13211	0.23981	0.26604	0.05413	0.13498	0.11715	
	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II	
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
#1	49.45106	1.00514	5.07193	0.99197	1.00762	5.24982	0.50916	1.06333	1.04154	
#2	49.36699	1.01138	5.06959	1.00266	0.99780	5.26894	0.51038	1.04651	1.04026	
Mean	49.40902	1.00826	5.07076	0.99731	1.00271	5.25938	0.50977	1.05492	1.04090	
%RSD	0.12031	0.43740	0.03264	0.75807	0.69279	0.25711	0.16990	1.12735	0.08719	
	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn	
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
#1	5.03099	1.05977	0.51391	0.32170	0.48571	0.53689	5.02232	0.48677	0.94119	
#2	5.04070	1.07212	0.51253	0.32519	0.48557	0.54100	4.99891	0.48768	0.95306	
Mean	5.03584	1.06595	0.51322	0.32344	0.48564	0.53895	5.01061	0.48723	0.94713	
%RSD	0.13640	0.81935	0.18993	0.76327	0.02029	0.53935	0.33042	0.13217	0.88588	
	Zr	Pb	Se							
	ppm	calc	calc							
#1	0.99979	1.00241	1.04880							
#2	1.00001	0.99942	1.04234							
Mean	0.99990	1.00091	1.04557							
%RSD	0.01563	0.21139	0.43666							

Method : Paragon

File : 111118A

Printed : 11/21/2011 12:55:42

SampleId1 : CCB

SampleId2 :

[CB]

Analysis commenced : 11/18/2011 18:10:30

Dilution ratio : 1.00000 to 1.00000 Tray :

Position : STD2

Final concentrations

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	ppm								
#1	-0.00071	0.02816	-0.00095	-0.00622	-0.00133	0.00046	-0.00210	-0.08333	-0.00086
#2	-0.00076	0.03090	0.00147	-0.00576	-0.00125	0.00047	-0.00158	-0.08419	-0.00074
Mean	-0.00074	0.02953	0.00026	-0.00599	-0.00129	0.00047	-0.00184	-0.08376	-0.00080
%RSD	5.02879	6.54873	649.54057	5.40494	4.55677	1.76332	19.98226	0.72909	10.38524
	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm								
#1	-0.00130	-0.00129	-0.00266	-0.01244	-0.27636	-0.00198	-0.06451	-0.00086	-0.00141
#2	-0.00081	-0.00117	-0.00238	-0.01315	-0.28409	-0.00199	-0.06228	-0.00086	-0.00034
Mean	-0.00106	-0.00123	-0.00252	-0.01280	-0.28022	-0.00198	-0.06340	-0.00086	-0.00087
%RSD	32.26897	7.23578	7.66860	3.94194	1.95135	0.12547	2.49595	0.00000	86.00257
	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	ppm								
#1	-0.17878	-0.00181	-0.01319	-0.00642	-0.00012	-0.02878	-0.00489	0.00395	0.00197
#2	-0.17944	-0.00171	-0.01523	-0.00136	0.00019	-0.03195	-0.00390	-0.00905	0.00044
Mean	-0.17911	-0.00176	-0.01421	-0.00389	0.00003	-0.03036	-0.00440	-0.00255	0.00121
%RSD	0.26164	4.09257	10.18807	91.87302	617.14298	7.38805	15.87622	360.18654	89.96451

ted: 11/21/2011 12:56:07 User: MIKE LUNDGREEN

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	-0.02620	-0.00121	-0.00192	0.00748	-0.00308	-0.00178	-0.04187	-0.00104	-0.00091
#2	-0.02341	-0.00121	-0.00194	0.00388	-0.00314	-0.00048	-0.04255	-0.00083	-0.00124
Mean	-0.02481	-0.00121	-0.00193	0.00568	-0.00311	-0.00113	-0.04221	-0.00093	-0.00108
%RSD	7.93187	0.00406	0.42351	44.80645	1.35675	81.64980	1.14923	15.47321	22.10204

	Zr ppm	Pb calc	Se calc
#1	-0.00028	-0.00221	0.00263
#2	-0.00013	-0.00033	-0.00272
Mean	-0.00021	-0.00127	-0.00005
%RSD	51.08498	104.74494	8293.21763

Method : Paragon

File : 111118A

Printed : 11/21/2011 12:55:42

SampleId1 : 1111040-4 1000X

SampleId2 :

[SAMPLE]

Analysis commenced : 11/18/2011 18:12:25

Dilution ratio : 1.00000 to 1.00000 Tray :

Position : TUBE11

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00056	0.05638	-0.00411	0.03765	0.22553	0.00065	-0.00158	10.54730	-0.00068
#2	-0.00014	0.05961	-0.00200	0.03673	0.22365	0.00062	-0.00331	10.51623	-0.00079
Mean	-0.00035	0.05799	-0.00305	0.03719	0.22459	0.00064	-0.00245	10.53177	-0.00074
%RSD	85.00620	3.93947	48.77131	1.74068	0.59166	3.62940	50.18037	0.20858	10.55415

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00070	-0.00130	-0.00148	0.13140	0.50211	0.03377	0.99698	0.00356	-0.00116
#2	-0.00064	-0.00133	-0.00221	0.13045	0.50310	0.03347	0.98802	0.00346	-0.00026
Mean	-0.00067	-0.00131	-0.00184	0.13093	0.50261	0.03362	0.99250	0.00351	-0.00071
%RSD	6.92553	1.71113	27.93021	0.51434	0.14053	0.62893	0.63813	1.85178	89.52267

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	32.56991	-0.00032	-0.01842	-0.00118	-0.00175	-0.02878	-0.00293	-0.00376	0.00140
#2	32.37578	-0.00123	-0.01296	-0.00142	0.00172	-0.02878	-0.00194	-0.00111	-0.00124
Mean	32.47284	-0.00077	-0.01569	-0.00130	-0.00001	-0.02878	-0.00244	-0.00244	0.00008
%RSD	0.42273	83.61457	24.60738	13.12699	16672.12574	0.00000	28.66836	76.88808	2214.95608

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	-0.01573	-0.00531	1.48893	0.00121	-0.00297	-0.00011	-0.03647	-0.00117	0.00077
#2	-0.01434	-0.00121	1.47691	0.00542	-0.00277	-0.00291	-0.03579	-0.00072	-0.00158
Mean	-0.01503	-0.00326	1.48292	0.00331	-0.00287	-0.00151	-0.03613	-0.00095	-0.00040
%RSD	6.54373	88.89779	0.57320	89.86799	4.89847	131.06104	1.34488	33.58107	412.73688

	Zr ppm	Pb calc	SeUNDRGREEN calc
#1	-0.00028	-0.00156	-0.00032
#2	-0.00047	0.00068	-0.00119
Mean	-0.00038	-0.00044	-0.00076
%RSD	35.81824	358.71463	82.28822

Method : Paragon File : 111118A
 SampleId1 : 1111040-5 1000X SampleId2 :
 Analysis commenced : 11/18/2011 18:14:14
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:42
 [SAMPLE]

Position : TUBE12

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00113	0.06466	-0.00074	0.03971	0.12386	0.00070	-0.00383	9.28219	-0.00070
#2	-0.00133	0.05661	-0.00432	0.03727	0.12428	0.00062	-0.00280	9.24767	-0.00099
Mean	-0.00123	0.06063	-0.00253	0.03849	0.12407	0.00066	-0.00331	9.26493	-0.00085
%RSD	11.64474	9.38663	100.18815	4.48540	0.23771	7.94498	22.14570	0.26339	23.51756

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00112	-0.00117	-0.00211	0.09224	0.40397	0.02745	0.85188	0.00319	-0.00083
#2	-0.00181	-0.00179	-0.00220	0.09081	0.39648	0.02735	0.83890	0.00310	-0.00010
Mean	-0.00147	-0.00148	-0.00216	0.09153	0.40023	0.02740	0.84539	0.00314	-0.00047
%RSD	33.17934	29.73255	2.76998	1.10327	1.32339	0.25427	1.08621	2.06845	111.87438

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	31.57197	-0.00052	-0.01000	-0.00375	-0.00008	-0.01926	-0.00330	-0.00540	0.00080
#2	31.46612	-0.00157	-0.01501	-0.00443	0.00049	-0.02560	-0.00316	-0.00831	-0.00099
Mean	31.51905	-0.00105	-0.01250	-0.00409	0.00021	-0.02243	-0.00323	-0.00685	-0.00009
%RSD	0.23746	71.09313	28.30269	11.74137	194.88965	20.00051	2.96055	30.01219	1346.12800

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	-0.01863	-0.00367	1.10857	0.00619	-0.00307	-0.00353	-0.03645	-0.00110	0.00178
#2	-0.01723	0.00125	1.10919	0.00306	-0.00300	0.00197	-0.04469	-0.00151	0.00514
Mean	-0.01793	-0.00121	1.10888	0.00462	-0.00303	-0.00078	-0.04057	-0.00130	0.00346
%RSD	5.53771	287.32266	0.03921	47.84481	1.62178	498.34221	14.35862	22.22340	68.64710

	Zr ppm	Pb calc	Se calc
#1	-0.00061	-0.00130	-0.00126
#2	-0.00070	-0.00115	-0.00343
Mean	-0.00066	-0.00122	-0.00234
%RSD	9.77250	8.74976	65.20245

Method : Paragon File : 111118A

Printed : 11/21/2011 12:55:42

SampleId1 : 1111040-7 1000X SampleId2 :
 Analysis commenced : 11/18/2011 18:16:03
 Dilution ratio : 1.00000 to 1.00000 Tray :

[SAMPLE]
 Position : TUBE13

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00102	0.03201	-0.00032	0.02338	0.02978	0.00055	-0.00297	6.10702	-0.00086
#2	0.00002	0.03060	0.00011	0.02392	0.02995	0.00048	-0.00054	6.11750	-0.00067
Mean	-0.00050	0.03131	-0.00010	0.02365	0.02986	0.00052	-0.00175	6.11226	-0.00077
%RSD	146.80074	3.17412	283.90580	1.59674	0.39457	9.32848	97.87706	0.12116	17.36041

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00105	-0.00133	-0.00202	0.35194	0.05549	0.01184	0.51382	0.00576	-0.00075
#2	-0.00084	-0.00067	-0.00230	0.35253	0.05824	0.01187	0.51203	0.00595	-0.00051
Mean	-0.00094	-0.00100	-0.00216	0.35224	0.05687	0.01185	0.51293	0.00585	-0.00063
%RSD	15.50012	46.71554	8.90797	0.11969	3.41355	0.16799	0.24688	2.22069	27.59082

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	19.36705	-0.00157	-0.01023	-0.00335	0.00142	-0.00657	0.00001	0.00631	-0.00290
#2	19.37021	-0.00089	-0.01114	-0.00201	0.00039	-0.00022	-0.00354	-0.00518	0.00128
Mean	19.36863	-0.00123	-0.01068	-0.00268	0.00090	-0.00340	-0.00177	0.00056	-0.00081
%RSD	0.01156	38.92337	6.02258	35.35704	80.82637	132.06841	142.46584	1437.58493	365.34603

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	-0.00373	-0.00080	0.53304	0.00764	-0.00298	-0.00272	-0.03594	-0.00117	0.00010
#2	-0.00133	-0.00408	0.53555	0.00921	-0.00308	-0.00332	-0.03662	-0.00076	0.00044
Mean	-0.00253	-0.00244	0.53429	0.00842	-0.00303	-0.00302	-0.03628	-0.00097	0.00027
%RSD	67.01204	95.01816	0.33256	13.16074	2.32062	14.06610	1.33882	29.96533	88.30749

	Zr ppm	Pb calc	Se calc
#1	-0.00085	-0.00017	0.00017
#2	-0.00062	-0.00041	-0.00087
Mean	-0.00074	-0.00029	-0.00035
%RSD	21.99699	58.22122	209.48909

Method : Paragon File : 111118A
 SampleId1 : 1111051-1 1000X SampleId2 :
 Analysis commenced : 11/18/2011 18:17:52
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:43
 [SAMPLE]
 Position : TUBE14

Final concentrations

Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
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#1	-0.00040	0.03695	-0.00748	0.03612	0.14067	0.00050	-0.00089	9.04094	-0.00049
#2	-0.00102	0.03790	-0.00453	0.03788	0.14101	0.00048	-0.00002	9.04562	-0.00083
Mean	-0.00071	0.03742	-0.00600	0.03700	0.14084	0.00049	-0.00045	9.04328	-0.00066
%RSD	62.40455	1.78430	34.73591	3.35349	0.16756	3.87832	135.31731	0.03658	37.00845

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00082	-0.00154	-0.00211	0.05571	0.39598	0.02620	0.78382	0.00218	-0.00124
#2	-0.00062	-0.00082	-0.00202	0.05536	0.39074	0.02628	0.79277	0.00209	-0.00214
Mean	-0.00072	-0.00118	-0.00207	0.05553	0.39336	0.02624	0.78830	0.00213	-0.00169
%RSD	20.32518	43.06093	3.09134	0.45446	0.94254	0.21807	0.80334	3.04974	37.59644

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	29.87670	0.00341	-0.01796	-0.00135	0.00052	-0.02560	-0.00330	-0.00136	0.00028
#2	29.93355	0.00267	-0.02206	-0.00174	-0.00038	-0.04147	-0.00380	0.00041	-0.00423
Mean	29.90512	0.00304	-0.02001	-0.00154	0.00007	-0.03354	-0.00355	-0.00048	-0.00198
%RSD	0.13440	17.34919	14.46892	18.18816	869.55238	33.44570	10.06369	262.75191	161.61729

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	-0.02431	0.00125	1.17678	0.00250	-0.00319	0.00196	-0.03986	-0.00045	0.00245
#2	-0.02343	0.00002	1.18094	0.00519	-0.00312	0.00286	-0.03917	-0.00061	0.00178
Mean	-0.02387	0.00063	1.17886	0.00384	-0.00315	0.00241	-0.03951	-0.00053	0.00212
%RSD	2.60392	137.12172	0.24931	49.46644	1.56042	26.46955	1.22906	21.74948	22.44544

	Zr ppm	Pb calc	Se calc
#1	-0.00057	-0.00010	-0.00026
#2	-0.00076	-0.00083	-0.00269
Mean	-0.00066	-0.00047	-0.00148
%RSD	19.69823	111.61946	116.08773

Method : Paragon File : 111118A
 SampleId1 : 1111051-2 1000X SampleId2 :
 Analysis commenced : 11/18/2011 18:19:43
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:43

[SAMPLE]

Position : TUBE15

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00061	0.03422	-0.00463	0.03078	0.12536	0.00043	0.00085	8.10291	-0.00054
#2	-0.00081	0.03263	-0.00358	0.03071	0.12516	0.00040	-0.00644	8.10175	-0.00091
Mean	-0.00071	0.03343	-0.00411	0.03074	0.12526	0.00041	-0.00280	8.10233	-0.00073
%RSD	20.20067	3.37256	18.13214	0.17547	0.11773	5.77357	184.20743	0.01019	35.88710

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00105	-0.00095	-0.00257	0.04465	0.30810	0.02281	0.70232	0.00172	-0.00247

#2	-0.00174	-0.00151	-0.00283	0.04382	0.30635	0.02278	0.69202	0.00163	-0.00133
Mean	-0.00139	-0.00123	-0.00270	0.04423	0.30723	0.02280	0.69717	0.00167	-0.00190
%RSD	34.89194	32.24495	6.98644	1.33125	0.40222	0.07642	1.04453	3.88821	42.69118

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	26.62584	-0.00147	-0.02024	-0.00267	0.00027	-0.02243	-0.00343	-0.00363	0.00215
#2	26.62693	-0.00194	-0.01705	-0.00343	0.00002	-0.03829	-0.00183	-0.00351	-0.00057
Mean	26.62638	-0.00171	-0.01864	-0.00305	0.00014	-0.03036	-0.00263	-0.00357	0.00079
%RSD	0.00288	19.66785	12.07746	17.78579	125.53372	36.94031	43.20884	2.38136	243.70893

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	-0.02242	-0.00776	1.05144	0.00539	-0.00304	0.00155	-0.03916	-0.00123	0.00145
#2	-0.02455	-0.00735	1.05161	0.00637	-0.00305	-0.00095	-0.04671	-0.00131	0.00111
Mean	-0.02348	-0.00756	1.05153	0.00588	-0.00304	0.00030	-0.04294	-0.00127	0.00128
%RSD	6.41337	3.83194	0.01112	11.83430	0.23093	592.47316	12.43587	4.56160	18.60459

	Zr ppm	Pb calc	Se calc
#1	-0.00064	-0.00071	0.00023
#2	-0.00108	-0.00113	-0.00155
Mean	-0.00086	-0.00092	-0.00066
%RSD	36.55770	32.39447	190.34700

Method : Paragon File : 111118A
 SampleId1 : 1111160-2A SampleId2 :
 Analysis commenced : 11/18/2011 18:21:31
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:43

[SAMPLE]

Position : TUBE16

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00302	110.68549	2.09938	0.52791	2.81985	0.05438	0.00570	217.87419	0.04782
#2	-0.00259	110.63444	2.09178	0.52806	2.81533	0.05426	0.00553	218.32958	0.04923
Mean	-0.00280	110.65996	2.09558	0.52799	2.81759	0.05432	0.00561	218.10189	0.04852
%RSD	10.77091	0.03262	0.25631	0.02047	0.11346	0.15481	2.16775	0.14764	2.05589

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.51520	0.26180	0.37052	165.57568	81.62111	0.69733	76.58515	2.30854	0.96221
#2	0.51451	0.26211	0.37116	165.57591	81.77234	0.70016	76.89058	2.30636	0.96295
Mean	0.51485	0.26195	0.37084	165.57580	81.69673	0.69875	76.73786	2.30745	0.96258
%RSD	0.09599	0.08549	0.12212	0.00010	0.13089	0.28619	0.28144	0.06693	0.05446

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	44.03727	0.58919	4.33504	0.60767	0.61519	7.12228	0.49755	2.20116	2.18533
#2	44.22983	0.59086	4.34832	0.60918	0.61321	7.10631	0.50028	2.18947	2.20510

Mean	44.13355	0.59002	4.34168	0.60842	0.61420	7.11429	0.49891	2.19532	2.19522
%RSD	0.30852	0.19971	0.21640	0.17557	0.22795	0.15865	0.38671	0.37649	0.63664
	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	10.05231	0.52703	1.11139	0.13435	0.71209	2.07879	0.28343	0.66933	0.86596
#2	10.01397	0.52908	1.10914	0.14044	0.71256	2.08755	0.27862	0.67114	0.86765
Mean	10.03314	0.52806	1.11026	0.13740	0.71233	2.08317	0.28103	0.67023	0.86681
%RSD	0.27021	0.27488	0.14310	3.13112	0.04647	0.29739	1.20945	0.19089	0.13818
	Zr	Pb	Se						
	ppm	calc	calc						
#1	1.91246	0.61268	2.19060						
#2	1.89749	0.61187	2.19989						
Mean	1.90498	0.61227	2.19525						
%RSD	0.55565	0.09442	0.29925						

Method : Paragon

File : 111118A

Printed : 11/21/2011 12:55:43

SampleId1 : IP111117-2MB

SampleId2 :

[SAMPLE]

Analysis commenced : 11/18/2011 18:23:24

Dilution ratio : 1.00000 to 1.00000 Tray :

Position : TUBE17

Final concentrations

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	ppm								
#1	-0.00086	0.03541	-0.00379	-0.00660	-0.00108	0.00038	-0.00592	-0.04360	-0.00068
#2	-0.00092	0.03864	-0.00421	-0.00576	-0.00100	0.00038	-0.00019	-0.04187	-0.00049
Mean	-0.00089	0.03702	-0.00400	-0.00618	-0.00104	0.00038	-0.00305	-0.04274	-0.00059
%RSD	4.28328	6.18107	7.44374	9.60321	5.64887	1.51805	132.48016	2.85814	23.36654
	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm								
#1	-0.00137	-0.00129	-0.00211	0.06000	-0.27835	-0.00209	-0.05780	-0.00030	-0.00108
#2	-0.00109	-0.00035	-0.00156	0.06107	-0.27212	-0.00207	-0.05467	-0.00030	-0.00124
Mean	-0.00123	-0.00082	-0.00183	0.06053	-0.27524	-0.00208	-0.05624	-0.00030	-0.00116
%RSD	15.85479	81.10789	20.99651	1.25088	1.60221	0.59867	3.93930	0.00000	9.96730
	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	ppm								
#1	-0.17110	-0.00120	-0.01137	-0.00337	0.00023	-0.02878	-0.00366	0.00040	-0.00117
#2	-0.17110	-0.00167	-0.00977	-0.00214	0.00160	-0.04464	-0.00465	-0.01070	0.00224
Mean	-0.17110	-0.00144	-0.01057	-0.00275	0.00092	-0.03671	-0.00416	-0.00515	0.00054
%RSD	0.00000	23.38464	10.65293	31.58444	105.94904	30.55513	16.84341	152.45871	447.27183
	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm								
#1	-0.01521	0.00043	-0.00182	0.00948	-0.00303	-0.00625	-0.04604	-0.00106	0.00313
#2	-0.01584	-0.00449	-0.00177	0.00557	-0.00301	-0.00475	-0.04535	-0.00078	0.00279
Mean	-0.01552	-0.00203	-0.00180	0.00752	-0.00302	-0.00550	-0.04569	-0.00092	0.00296

%RSD	2.88288	171.30874	1.81934	36.75546	0.46565	19.30563	1.06127	22.02809	8.03474
	Zr	Pb	Se						
	ppm	calc	calc						
#1	0.00014	-0.00097	-0.00064						
#2	0.00048	0.00036	-0.00207						
Mean	0.00031	-0.00031	-0.00136						
%RSD	77.51662	307.25573	74.29495						

Method : Paragon File : 111118A
SampleId1 : IP111117-2RVS SampleId2 :
Analysis commenced : 11/18/2011 18:25:25
Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:43
[SAMPLE]

Position : TUBE18

Final concentrations

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	ppm								
#1	0.00882	1.03224	0.04646	0.04215	0.04920	0.00973	0.09570	4.62457	0.01915
#2	0.00944	1.02921	0.04635	0.04177	0.04878	0.00965	0.10385	4.62283	0.01877
Mean	0.00913	1.03072	0.04641	0.04196	0.04899	0.00969	0.09977	4.62370	0.01896
%RSD	4.79787	0.20843	0.16058	0.64287	0.60148	0.62148	5.77446	0.02663	1.42298

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm								
#1	0.01773	0.04754	0.05094	1.00550	7.96149	0.03734	4.83151	0.04770	0.09561
#2	0.01835	0.04801	0.05085	1.00598	7.91509	0.03721	4.80727	0.04779	0.09594
Mean	0.01804	0.04777	0.05089	1.00574	7.93829	0.03727	4.81939	0.04774	0.09578
%RSD	2.43012	0.69127	0.13370	0.03370	0.41333	0.24692	0.35567	0.13624	0.24186

	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	ppm								
#1	8.23655	0.04807	0.93248	0.04493	0.05103	0.96465	0.09252	0.03730	0.04665
#2	8.19393	0.04966	0.92744	0.04777	0.04720	0.93290	0.09325	0.04450	0.04520
Mean	8.21524	0.04887	0.92996	0.04635	0.04912	0.94877	0.09289	0.04090	0.04593
%RSD	0.36684	2.30634	0.38258	4.32764	5.51280	2.36646	0.55903	12.44765	2.23083

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm								
#1	0.25243	0.09993	0.04834	0.00152	0.04502	0.09588	0.46484	0.04735	0.04649
#2	0.25343	0.09830	0.04815	0.00007	0.04440	0.09429	0.47170	0.04788	0.04683
Mean	0.25293	0.09911	0.04825	0.00079	0.04471	0.09509	0.46827	0.04762	0.04666
%RSD	0.28009	1.16896	0.28827	128.56458	0.99050	1.18790	1.03685	0.79003	0.50955

	Zr	Pb	Se
	ppm	calc	calc
#1	0.04830	0.04900	0.04354
#2	0.04883	0.04739	0.04497
Mean	0.04856	0.04820	0.04425
%RSD	0.76782	2.36142	2.28672

ted: 11/21/2011 12:56:07 User: MIKE LUNDGREEN
 Method : Paragon File : 111118A
 SampleId1 : IP111117-2LCS SampleId2 :
 Analysis commenced : 11/18/2011 18:27:13
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:43
 [SAMPLE]
 Position : TUBE19

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	0.08833	2.09001	1.87985	0.46303	1.98569	0.04539	0.00032	35.70227	0.04603
#2	0.08731	2.10003	1.89554	0.46280	1.99686	0.04552	-0.00141	35.74041	0.04577
Mean	0.08782	2.09502	1.88770	0.46291	1.99128	0.04545	-0.00055	35.72134	0.04590
%RSD	0.82767	0.33795	0.58769	0.03502	0.39679	0.19632	224.02862	0.07549	0.40141

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.46388	0.18643	0.25017	0.99795	35.97602	0.46192	36.13684	0.47168	0.94310
#2	0.46382	0.18679	0.25128	0.99723	36.05859	0.46323	36.22332	0.47316	0.95381
Mean	0.46385	0.18661	0.25073	0.99759	36.01730	0.46258	36.18008	0.47242	0.94846
%RSD	0.00881	0.13478	0.31197	0.05097	0.16210	0.19890	0.16900	0.22165	0.79822

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	35.63545	0.48492	0.00024	0.47189	0.47009	-0.01291	0.46300	1.81947	1.80741
#2	35.69430	0.48417	-0.01364	0.47468	0.47395	-0.02878	0.46581	1.83622	1.81166
Mean	35.66488	0.48454	-0.00670	0.47329	0.47202	-0.02085	0.46440	1.82784	1.80953
%RSD	0.11668	0.10912	146.40257	0.41707	0.57799	53.80617	0.42793	0.64817	0.16614

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	1.58397	0.50966	0.49223	-0.01869	0.46473	2.02753	-0.03912	0.47532	0.45276
#2	1.58126	0.50802	0.49487	-0.02451	0.46678	2.03356	-0.05835	0.47623	0.45208
Mean	1.58262	0.50884	0.49355	-0.02160	0.46576	2.03055	-0.04874	0.47578	0.45242
%RSD	0.12125	0.22858	0.37811	19.04931	0.31130	0.21013	27.89021	0.13425	0.10550

	Zr ppm	Pb calc	Se calc
#1	0.00471	0.47069	1.81142
#2	0.00379	0.47419	1.81984
Mean	0.00425	0.47244	1.81563
%RSD	15.33204	0.52431	0.32773

Method : Paragon File : 111118A
 SampleId1 : 1111162-1 SampleId2 :
 Analysis commenced : 11/18/2011 18:32:26
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:44
 [SAMPLE]
 Position : TUBE20

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00283	80.17530	0.05626	0.01469	1.05085	0.00711	0.00507	175.76846	0.00045
#2	-0.00215	79.93688	0.05352	0.01446	1.04819	0.00704	0.00750	176.13277	0.00032
Mean	-0.00249	80.05609	0.05489	0.01457	1.04952	0.00708	0.00628	175.95062	0.00039
%RSD	19.25443	0.21058	3.53015	1.11064	0.17902	0.69934	27.32443	0.14641	24.60625

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.05807	0.06876	0.10646	173.37229	16.63314	0.10269	45.99075	1.94988	0.00440
#2	0.05890	0.06889	0.10655	173.40544	16.54210	0.10206	45.88813	1.95243	0.00490
Mean	0.05849	0.06883	0.10650	173.38887	16.58762	0.10237	45.93944	1.95116	0.00465
%RSD	0.99322	0.12936	0.06072	0.01352	0.38811	0.43422	0.15795	0.09247	7.46804

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	1.38465	0.09352	3.50432	0.10629	0.11684	9.71750	-0.00177	-0.01717	0.02056
#2	1.37568	0.09399	3.54539	0.10959	0.11566	9.73030	0.00227	-0.01251	0.01903
Mean	1.38017	0.09376	3.52486	0.10794	0.11625	9.72390	0.00025	-0.01484	0.01980
%RSD	0.45933	0.35816	0.82397	2.16378	0.71716	0.09307	1137.79172	22.22643	5.45228

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	7.59150	0.00263	0.69762	0.10167	0.21769	0.00224	0.15178	0.15476	0.38022
#2	7.53030	0.00304	0.69642	0.09804	0.21812	0.00295	0.15107	0.15533	0.37954
Mean	7.56090	0.00283	0.69702	0.09986	0.21790	0.00260	0.15143	0.15505	0.37988
%RSD	0.57233	10.20657	0.12134	2.56854	0.14201	19.43428	0.33117	0.26434	0.12556

	Zr ppm	Pb calc	Se calc
#1	0.04130	0.11333	0.00800
#2	0.04128	0.11364	0.00853
Mean	0.04129	0.11348	0.00826
%RSD	0.03544	0.19534	4.57837

Method : Paragon

File : 111118A

Printed : 11/21/2011 12:55:44

SampleId1 : CCV

SampleId2 :

[CV]

Analysis commenced : 11/18/2011 18:34:56

Dilution ratio : 1.00000 to 1.00000 Tray :

Position : STD6

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	0.19851	52.37424	0.50918	1.01297	1.01990	0.47505	0.53313	48.27687	0.50311
#2	0.19743	52.33902	0.51576	1.01572	1.02154	0.47646	0.54024	48.42362	0.50447
Mean	0.19797	52.35663	0.51247	1.01434	1.02072	0.47576	0.53669	48.35025	0.50379
%RSD	0.38406	0.04756	0.90769	0.19218	0.11391	0.21047	0.93656	0.21461	0.19201

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
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	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	0.47992	0.96713	1.03305	19.83051	48.93893	0.51806	49.92534	0.96647	0.98091
#2	0.48206	0.97097	1.03276	19.88167	48.82509	0.51657	49.97469	0.96861	0.98585
Mean	0.48099	0.96905	1.03291	19.85609	48.88201	0.51731	49.95002	0.96754	0.98338
%RSD	0.31511	0.27970	0.02013	0.18217	0.16468	0.20324	0.06987	0.15668	0.35541

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	48.86648	0.99298	4.95145	0.98577	0.98963	5.13827	0.50218	1.03067	1.02773
#2	48.68080	0.99546	4.98957	0.98201	0.98831	5.15421	0.49921	1.04176	1.02085
Mean	48.77364	0.99422	4.97051	0.98389	0.98897	5.14624	0.50069	1.03622	1.02429
%RSD	0.26920	0.17693	0.54239	0.27031	0.09426	0.21895	0.41967	0.75635	0.47471

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	4.96294	1.05319	0.50228	0.30974	0.47850	0.52971	4.88488	0.48070	0.94526
#2	4.96330	1.05731	0.50338	0.31287	0.47952	0.53336	4.91167	0.48416	0.95102
Mean	4.96312	1.05525	0.50283	0.31130	0.47901	0.53153	4.89828	0.48243	0.94814
%RSD	0.00514	0.27579	0.15604	0.71233	0.14988	0.48467	0.38676	0.50705	0.42983

	Zr ppm	Pb calc	Se calc
#1	0.98116	0.98835	1.02871
#2	0.98358	0.98621	1.02781
Mean	0.98237	0.98728	1.02826
%RSD	0.17441	0.15268	0.06160

Method : Paragon

File : 111118A

Printed : 11/21/2011 12:55:44

SampleId1 : CCB

SampleId2 :

[CB]

Analysis commenced : 11/18/2011 18:36:52

Dilution ratio : 1.00000 to 1.00000 Tray :

Position : STD2

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00061	0.02773	0.00032	-0.00492	-0.00104	0.00040	-0.00106	-0.06951	-0.00065
#2	-0.00035	0.03216	-0.00769	-0.00576	-0.00104	0.00039	0.00085	-0.06490	-0.00104
Mean	-0.00048	0.02995	-0.00369	-0.00534	-0.00104	0.00040	-0.00010	-0.06721	-0.00085
%RSD	37.29919	10.45656	153.56035	11.11242	0.00000	1.26213	1294.07466	4.84633	32.10835

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00095	-0.00079	-0.00175	-0.00590	-0.24143	-0.00188	-0.05019	-0.00067	0.00048
#2	-0.00068	-0.00080	-0.00185	-0.00328	-0.23844	-0.00188	-0.05154	-0.00058	-0.00067
Mean	-0.00082	-0.00079	-0.00180	-0.00459	-0.23994	-0.00188	-0.05086	-0.00063	-0.00010
%RSD	23.88503	0.48882	3.89037	40.27683	0.88224	0.26480	1.86654	10.37742	832.95983

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
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#1	-0.17127	-0.00177	-0.00932	-0.00384	0.00207	-0.02878	-0.00268	-0.00653	0.00087
#2	-0.17016	-0.00160	-0.01387	-0.00114	0.00047	-0.04781	-0.00281	-0.00248	0.00027
Mean	-0.17072	-0.00169	-0.01159	-0.00249	0.00127	-0.03829	-0.00274	-0.00450	0.00057
%RSD	0.45754	7.09471	27.74930	76.55184	88.72598	35.14735	3.40693	63.53146	74.19274

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.02632	-0.00367	-0.00180	0.00322	-0.00293	0.00473	-0.04050	-0.00103	-0.00057
#2	-0.02343	-0.00735	-0.00179	0.00112	-0.00298	0.00274	-0.03020	-0.00075	-0.00091
Mean	-0.02488	-0.00551	-0.00179	0.00217	-0.00295	0.00373	-0.03535	-0.00089	-0.00074
%RSD	8.19558	47.30234	0.45630	68.48461	1.18959	37.76007	20.59459	22.75065	32.15183

	Zr	Pb	Se
	ppm	calc	calc
#1	-0.00014	0.00010	-0.00160
#2	0.00003	-0.00006	-0.00065
Mean	-0.00006	0.00002	-0.00112
%RSD	218.07170	608.66398	59.92682

Method : Paragon File : 111118A
SampleId1 : 1111162-1D SampleId2 :
Analysis commenced : 11/18/2011 18:38:47
Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:44
[SAMPLE]
Position : TUBE21

Final concentrations

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00217	81.75479	0.05963	0.01446	1.06540	0.00757	0.00819	185.23391	0.00039
#2	-0.00174	81.56331	0.06048	0.01598	1.06684	0.00766	0.00628	185.05752	0.00050
Mean	-0.00195	81.65905	0.06005	0.01522	1.06612	0.00761	0.00723	185.14571	0.00045
%RSD	15.31427	0.16581	0.99286	7.08881	0.09513	0.83085	18.63857	0.06737	17.28069

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	0.06135	0.07048	0.11172	179.30588	16.99181	0.10700	46.88836	2.07454	0.00309
#2	0.06121	0.07061	0.11191	179.28389	16.95736	0.10695	46.80088	2.07492	0.00653
Mean	0.06128	0.07055	0.11182	179.29489	16.97459	0.10697	46.84462	2.07473	0.00481
%RSD	0.15953	0.13058	0.11936	0.00867	0.14349	0.03714	0.13205	0.01291	50.49844

	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	1.46430	0.09677	3.68075	0.11383	0.11729	12.21278	-0.00217	-0.02152	0.02168
#2	1.47075	0.09701	3.66287	0.11427	0.11599	12.23202	0.00178	-0.02632	0.01460
Mean	1.46753	0.09689	3.67181	0.11405	0.11664	12.22240	-0.00019	-0.02392	0.01814
%RSD	0.31074	0.17328	0.34439	0.27373	0.78359	0.11131	1440.36574	14.18597	27.57484

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	7.32246	0.01042	0.72379	0.10327	0.20730	0.00044	0.15873	0.15775	0.38966

#2	7.17511	0.01001	0.72491	0.10110	0.20853	0.00572	0.14981	0.15795	0.39135
Mean	7.24879	0.01022	0.72435	0.10219	0.20791	0.00308	0.15427	0.15785	0.39051
%RSD	1.43731	2.84427	0.10996	1.50367	0.41606	121.40607	4.08446	0.08979	0.30539

	Zr ppm	Pb calc	Se calc
#1	0.04297	0.11614	0.00729
#2	0.04309	0.11542	0.00097
Mean	0.04303	0.11578	0.00413
%RSD	0.18634	0.43675	108.05975

Method : Paragon File : 111118A
SampleId1 : 1111162-1L 5X SampleId2 :
Analysis commenced : 11/18/2011 18:40:36
Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:44

[SAMPLE]

Position : TUBE22

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00108	15.77473	0.01611	-0.00156	0.21501	0.00203	0.00184	34.28101	-0.00071
#2	-0.00093	15.70275	0.00190	-0.00240	0.21354	0.00194	0.00011	34.54437	-0.00021
Mean	-0.00101	15.73874	0.00901	-0.00198	0.21427	0.00198	0.00097	34.41269	-0.00046
%RSD	10.59857	0.32339	111.64634	29.92211	0.48227	3.26306	126.11206	0.54114	77.27253

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.01106	0.01355	0.01940	32.68289	2.41087	0.01519	9.31741	0.40730	0.00031
#2	0.01188	0.01430	0.01948	32.78209	2.40562	0.01507	9.29085	0.40831	-0.00059
Mean	0.01147	0.01393	0.01944	32.73249	2.40825	0.01513	9.30413	0.40780	-0.00014
%RSD	5.07916	3.80211	0.30947	0.21429	0.15437	0.55940	0.20185	0.17637	460.66202

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	0.08842	0.01867	0.71602	0.02043	0.02307	1.94941	-0.00111	-0.00277	0.00340
#2	0.08742	0.01976	0.71008	0.02183	0.02335	1.94624	-0.00333	-0.00454	0.00572
Mean	0.08792	0.01921	0.71305	0.02113	0.02321	1.94782	-0.00222	-0.00365	0.00456
%RSD	0.80154	3.99327	0.58894	4.66841	0.86773	0.11537	70.65197	34.31341	36.00099

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	0.62720	-0.00083	0.14254	0.02745	0.02590	0.00454	0.00109	0.03132	0.08079
#2	0.62630	0.00121	0.14214	0.03100	0.02591	-0.00071	0.00858	0.03138	0.08147
Mean	0.62675	0.00019	0.14234	0.02922	0.02590	0.00191	0.00483	0.03135	0.08113
%RSD	0.10149	760.92395	0.19581	8.58279	0.02714	194.07085	109.50222	0.13565	0.58630

	Zr ppm	Pb calc	Se calc
#1	0.00754	0.02219	0.00134
#2	0.00763	0.02285	0.00230

Mean 0.00759 0.02252 0.00182UNDGREEN
 %RSD 0.84032 2.05530 37.12640

Method : Paragon File : 111118A
 SampleId1 : 1111162-1MS SampleId2 :
 Analysis commenced : 11/18/2011 18:42:26
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:45
 [SAMPLE]

Position : TUBE23

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	0.08771	120.52640	1.94480	0.34247	3.05388	0.05221	0.00635	211.86697	0.04643
#2	0.08898	119.65169	1.95043	0.33895	3.03584	0.05216	0.00374	212.11298	0.04691
Mean	0.08835	120.08904	1.94761	0.34071	3.04486	0.05218	0.00505	211.98998	0.04667
%RSD	1.01428	0.51504	0.20444	0.72920	0.41906	0.06870	36.60260	0.08206	0.72443

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.51206	0.26984	0.37489	179.51890	61.90748	0.68173	85.65369	2.35956	0.88843
#2	0.51224	0.26966	0.37217	179.72692	61.36854	0.67530	85.40889	2.35965	0.89123
Mean	0.51215	0.26975	0.37353	179.62291	61.63801	0.67851	85.53129	2.35960	0.88983
%RSD	0.02502	0.04699	0.51403	0.08189	0.61827	0.67015	0.20238	0.00285	0.22244

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	43.48901	0.56902	3.53495	0.57751	0.57886	10.79311	0.30068	1.84793	1.82803
#2	43.05568	0.57072	3.53170	0.57320	0.57729	10.78350	0.30108	1.83906	1.84890
Mean	43.27234	0.56987	3.53333	0.57536	0.57807	10.78830	0.30088	1.84349	1.83846
%RSD	0.70810	0.21096	0.06502	0.53073	0.19145	0.06297	0.09297	0.34039	0.80247

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	10.39462	0.50561	1.21398	0.08960	0.42228	2.01457	0.16545	0.64995	0.81719
#2	10.36438	0.50232	1.20738	0.09050	0.42276	1.99904	0.14814	0.64979	0.81414
Mean	10.37950	0.50396	1.21068	0.09005	0.42252	2.00681	0.15679	0.64987	0.81566
%RSD	0.20607	0.46098	0.38548	0.70671	0.07995	0.54738	7.80520	0.01798	0.26420

	Zr ppm	Pb calc	Se calc
#1	0.06027	0.57841	1.83466
#2	0.05996	0.57593	1.84562
Mean	0.06012	0.57717	1.84014
%RSD	0.37130	0.30407	0.42121

Method : Paragon File : 111118A
 SampleId1 : 1111162-1MSD SampleId2 :
 Analysis commenced : 11/18/2011 18:44:16
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:45
 [SAMPLE]

Position : TUBE24

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	0.08908	123.29891	1.94913	0.33827	3.07042	0.05231	0.01014	211.85562	0.04653
#2	0.08808	122.91563	1.94902	0.33636	3.05095	0.05220	0.00615	212.57072	0.04653
Mean	0.08858	123.10727	1.94907	0.33731	3.06068	0.05226	0.00814	212.21317	0.04653
%RSD	0.79635	0.22015	0.00393	0.40029	0.44988	0.14229	34.63723	0.23827	0.00113

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.51260	0.27264	0.37589	185.13482	62.34971	0.68470	86.63465	2.39815	0.88974
#2	0.51354	0.27229	0.37307	185.58454	62.02765	0.67922	86.35486	2.39815	0.88497
Mean	0.51307	0.27246	0.37448	185.35968	62.18868	0.68196	86.49476	2.39815	0.88736
%RSD	0.12876	0.09012	0.53290	0.17156	0.36619	0.56808	0.22873	0.00000	0.38050

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	43.54697	0.57712	3.56396	0.57541	0.58075	9.36559	0.30609	1.82217	1.84678
#2	43.36142	0.57579	3.54470	0.57509	0.57902	9.25364	0.29939	1.80036	1.84088
Mean	43.45420	0.57645	3.55433	0.57525	0.57989	9.30962	0.30274	1.81127	1.84383
%RSD	0.30193	0.16268	0.38324	0.03916	0.21051	0.85031	1.56410	0.85162	0.22609

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	9.75177	0.50070	1.21757	0.10319	0.40578	2.01591	0.16300	0.65470	0.82768
#2	9.76571	0.50193	1.21111	0.08930	0.40896	1.99545	0.16612	0.65310	0.82870
Mean	9.75874	0.50131	1.21434	0.09624	0.40737	2.00568	0.16456	0.65390	0.82819
%RSD	0.10106	0.17323	0.37607	10.20024	0.55105	0.72120	1.34362	0.17286	0.08674

	Zr ppm	Pb calc	Se calc
#1	0.05947	0.57897	1.83859
#2	0.06016	0.57771	1.82739
Mean	0.05982	0.57834	1.83299
%RSD	0.81161	0.15376	0.43192

Method : Paragon File : 111118A
 SampleId1 : 1111162-2 SampleId2 :
 Analysis commenced : 11/18/2011 18:46:11
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:45
 [SAMPLE]

Position : TUBE25

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00182	48.99156	0.04066	0.01011	0.65166	0.00502	-0.00203	125.68451	-0.00001
#2	-0.00136	48.68194	0.03856	0.01095	0.64583	0.00492	0.00230	125.98393	0.00050
Mean	-0.00159	48.83675	0.03961	0.01053	0.64875	0.00497	0.00014	125.83422	0.00024
%RSD	20.37172	0.44830	3.76226	5.63625	0.63594	1.52114	2241.01862	0.16825	149.61647

ted: 11/21/2011 12:56:08 User: MIKE LUNDGREEN

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.03370	0.04131	0.05783	110.14928	15.33327	0.05849	38.10349	1.72287	0.00653
#2	0.03425	0.04202	0.05745	110.19179	15.17389	0.05780	37.91982	1.72155	0.00825
Mean	0.03397	0.04167	0.05764	110.17053	15.25358	0.05815	38.01165	1.72221	0.00739
%RSD	1.14082	1.21361	0.45780	0.02729	0.73880	0.84231	0.34167	0.05415	16.44264

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	0.23679	0.05475	3.16819	0.07515	0.08277	4.69856	-0.00122	0.01130	0.03510
#2	0.23252	0.05462	3.12002	0.07720	0.08140	4.65714	0.00160	0.02052	0.03562
Mean	0.23466	0.05468	3.14410	0.07618	0.08208	4.67785	0.00019	0.01591	0.03536
%RSD	1.28643	0.17541	1.08326	1.89858	1.17961	0.62601	1060.47279	40.96959	1.03916

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	3.78218	-0.00225	0.35477	0.06333	0.18472	-0.00004	0.26143	0.19672	0.24910
#2	3.76414	0.00308	0.35233	0.06276	0.18203	0.00079	0.27376	0.19706	0.25146
Mean	3.77316	0.00042	0.35355	0.06304	0.18337	0.00037	0.26760	0.19689	0.25028
%RSD	0.33815	903.96334	0.48905	0.63768	1.03545	155.84051	3.25827	0.12064	0.66623

	Zr ppm	Pb calc	Se calc
#1	0.02980	0.08023	0.02717
#2	0.03044	0.08000	0.03059
Mean	0.03012	0.08011	0.02888
%RSD	1.48686	0.20498	8.36349

Method : Paragon File : 111118A
 SampleId1 : 1111162-3 SampleId2 :
 Analysis commenced : 11/18/2011 18:48:03
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:45
 [SAMPLE]

Position : TUBE26

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00176	51.63076	0.03992	0.01057	0.65355	0.00512	0.00699	124.80100	0.00005
#2	-0.00191	51.50335	0.03592	0.00851	0.65318	0.00506	0.00456	124.26743	-0.00004
Mean	-0.00184	51.56705	0.03792	0.00954	0.65336	0.00509	0.00578	124.53422	0.00000
%RSD	5.82511	0.17471	7.46591	15.27313	0.04089	0.78071	29.70971	0.30296	1293.33719

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.03632	0.04424	0.06057	115.04942	16.27617	0.06129	40.36595	1.63522	0.00498
#2	0.03528	0.04377	0.06066	114.75140	16.27056	0.06124	40.25771	1.63259	0.00563
Mean	0.03580	0.04400	0.06061	114.90041	16.27336	0.06126	40.31183	1.63390	0.00530
%RSD	2.04268	0.75244	0.11022	0.18340	0.02437	0.05275	0.18987	0.11401	8.72831

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	0.23668	0.05655	3.19621	0.07967	0.08511	4.25901	-0.00139	0.00226	0.03166
#2	0.23890	0.05723	3.19297	0.08065	0.08460	4.25583	-0.00297	0.00014	0.02717
Mean	0.23779	0.05689	3.19459	0.08016	0.08485	4.25742	-0.00218	0.00120	0.02942
%RSD	0.65949	0.84309	0.07178	0.86582	0.42805	0.05289	51.29047	124.61601	10.79417

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	3.41679	0.00226	0.35632	0.05552	0.18507	0.00268	0.24574	0.19710	0.26695
#2	3.38519	0.00472	0.35590	0.05711	0.18564	0.00005	0.24113	0.19581	0.26662
Mean	3.40099	0.00349	0.35611	0.05631	0.18536	0.00137	0.24343	0.19645	0.26678
%RSD	0.65692	49.83110	0.08324	2.00515	0.21626	135.81103	1.33719	0.46308	0.08930

	Zr ppm	Pb calc	Se calc
#1	0.03065	0.08330	0.02187
#2	0.03013	0.08328	0.01817
Mean	0.03039	0.08329	0.02002
%RSD	1.20605	0.01339	13.06505

Method : Paragon

File : 111118A

Printed : 11/21/2011 12:55:45

SampleId1 : 1111162-4

SampleId2 :

[SAMPLE]

Analysis commenced : 11/18/2011 18:49:53

Dilution ratio : 1.00000 to 1.00000 Tray :

Position : TUBE27

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00155	39.56177	0.02454	0.00118	0.17660	0.00406	0.00208	57.15297	-0.00044
#2	-0.00114	39.27482	0.02075	-0.00034	0.17602	0.00400	0.00069	56.95366	-0.00026
Mean	-0.00135	39.41830	0.02265	0.00042	0.17631	0.00403	0.00139	57.05332	-0.00035
%RSD	21.98217	0.51476	11.84168	256.87902	0.23434	1.17129	70.64627	0.24702	36.21960

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.01511	0.01521	0.03061	80.94844	6.77434	0.04343	15.67517	1.38932	0.01832
#2	0.01518	0.01634	0.03079	80.75903	6.71038	0.04309	15.64082	1.38707	0.01889
Mean	0.01515	0.01647	0.03070	80.85374	6.74236	0.04326	15.65799	1.38819	0.01861
%RSD	0.30320	1.07163	0.42336	0.16565	0.67073	0.54044	0.15510	0.11463	2.17765

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	0.00722	0.01521	2.05349	0.10803	0.11273	11.18711	-0.00075	0.07994	0.10758
#2	0.00496	0.01423	2.07812	0.10770	0.11070	11.21594	-0.00098	0.09435	0.10328
Mean	0.00609	0.01472	2.06581	0.10787	0.11171	11.20152	-0.00086	0.08714	0.10543
%RSD	26.33446	4.72327	0.84303	0.21646	1.28781	0.18202	19.43363	11.69644	2.88511

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
--	----	----	----	----	----	----	---	---	----

	ppm								
#1	2.54372	0.00441	0.19868	0.04931	0.09955	0.00423	1.59656	0.43950	0.15751
#2	2.53155	-0.00092	0.19787	0.04643	0.10101	0.00335	1.59394	0.43700	0.15616
Mean	2.53764	0.00174	0.19827	0.04787	0.10028	0.00379	1.59525	0.43825	0.15684
%RSD	0.33893	216.18522	0.28975	4.25268	1.02360	16.40892	0.11609	0.40328	0.60701

	Zr ppm	Pb calc	Se calc
#1	0.04372	0.11117	0.09837
#2	0.04394	0.10970	0.10030
Mean	0.04383	0.11043	0.09934
%RSD	0.34290	0.93934	1.37443

Method : Paragon File : 111118A
 SampleId1 : 1111162-5 SampleId2 :
 Analysis commenced : 11/18/2011 18:51:43
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:46
 [SAMPLE]
 Position : TUBE28

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00132	31.70736	0.02444	0.00149	0.16178	0.00358	0.00135	79.88235	0.00012
#2	-0.00089	31.49227	0.02444	0.00362	0.16158	0.00353	0.00205	79.74196	-0.00013
Mean	-0.00110	31.59982	0.02444	0.00256	0.16168	0.00356	0.00170	79.81215	-0.00001
%RSD	27.04528	0.48131	0.00000	59.09225	0.09125	1.04673	28.91430	0.12439	2215.11936

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.01483	0.01625	0.02462	72.22518	6.77610	0.03758	14.03916	1.49206	0.00621
#2	0.01428	0.01657	0.02571	72.03687	6.71945	0.03727	13.96693	1.48868	0.00580
Mean	0.01456	0.01641	0.02517	72.13103	6.74777	0.03742	14.00305	1.49037	0.00600
%RSD	2.67411	1.36252	3.07476	0.18460	0.59367	0.59161	0.36475	0.16038	4.82271

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	0.04967	0.01382	2.17529	0.08893	0.09231	15.22451	-0.00219	0.18908	0.19898
#2	0.05011	0.01538	2.16907	0.09175	0.08955	15.25666	-0.00342	0.18581	0.19621
Mean	0.04989	0.01460	2.17218	0.09034	0.09093	15.24059	-0.00281	0.18745	0.19759
%RSD	0.62758	7.55297	0.20243	2.20661	2.14521	0.14917	31.01372	1.23250	0.99100

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	3.68884	-0.00058	0.17027	0.03510	0.15834	0.00156	1.11753	0.40732	0.14371
#2	3.65672	0.00270	0.16933	0.03696	0.15817	0.00989	1.11285	0.40588	0.14135
Mean	3.67278	0.00106	0.16980	0.03603	0.15826	0.00573	1.11519	0.40660	0.14253
%RSD	0.61842	218.52695	0.39126	3.65581	0.07554	102.77546	0.29673	0.24898	1.16871

	Zr ppm	Pb calc	Se calc
#1	0.04372	0.11117	0.09837
#2	0.04394	0.10970	0.10030
Mean	0.04383	0.11043	0.09934
%RSD	0.34290	0.93934	1.37443

#1	0.04157	0.09118	0.19568	UNDGREEN
#2	0.04105	0.09028	0.19275	
Mean	0.04131	0.09073	0.19421	
%RSD	0.89347	0.70236	1.06862	

Method : Paragon File : 111118A Printed : 11/21/2011 12:55:46
 SampleId1 : 1111162-6 SampleId2 : [SAMPLE]
 Analysis commenced : 11/18/2011 18:53:33
 Dilution ratio : 1.00000 to 1.00000 Tray : Position : TUBE29

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00176	45.58759	0.05457	0.00187	0.23618	0.00485	0.00259	99.31262	-0.00015
#2	-0.00200	45.40870	0.05310	0.00332	0.23476	0.00485	0.00345	99.08893	-0.00063
Mean	-0.00188	45.49814	0.05384	0.00259	0.23547	0.00485	0.00302	99.20077	-0.00039
%RSD	9.08037	0.27802	1.93803	39.50875	0.42643	0.01309	20.12480	0.15945	88.04572

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.02344	0.03565	0.03279	96.49059	8.11106	0.05813	17.99194	1.89113	0.07506
#2	0.02309	0.03522	0.03254	96.19978	8.08382	0.05780	17.95257	1.88640	0.07760
Mean	0.02327	0.03543	0.03267	96.34518	8.09744	0.05797	17.97226	1.88877	0.07633
%RSD	1.05189	0.84905	0.54666	0.21343	0.23789	0.39890	0.15490	0.17674	2.35177

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	0.19882	0.03329	2.38985	0.13421	0.13164	13.88785	0.00113	0.19103	0.20565
#2	0.20043	0.03400	2.37232	0.12867	0.13415	13.79794	0.00091	0.18852	0.20755
Mean	0.19962	0.03364	2.38109	0.13144	0.13290	13.84290	0.00102	0.18977	0.20660
%RSD	0.56934	1.49678	0.52042	2.97818	1.33571	0.45928	15.15577	0.93680	0.65186

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	2.33049	0.00112	0.45315	0.04110	0.10660	0.00314	3.46696	0.52085	0.19959
#2	2.35892	0.00276	0.45147	0.04665	0.10661	0.00580	3.44103	0.52010	0.19656
Mean	2.34470	0.00194	0.45231	0.04388	0.10661	0.00447	3.45399	0.52048	0.19807
%RSD	0.85750	59.72870	0.26266	8.94595	0.00659	42.16639	0.53077	0.10252	1.08182

	Zr ppm	Pb calc	Se calc
#1	0.05590	0.13250	0.20078
#2	0.05560	0.13233	0.20121
Mean	0.05575	0.13241	0.20100
%RSD	0.37290	0.09030	0.15238

Method : Paragon File : 111118A Printed : 11/21/2011 12:55:46
 SampleId1 : 1111162-7 SampleId2 : [SAMPLE]
 Analysis commenced : 11/18/2011 18:55:23

Dilution ratio : 1.00000 to 1.00000 Tray :

Position : TUBE30

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00205	37.81756	0.02928	0.00248	0.15165	0.00368	0.00234	44.77062	-0.00020
#2	-0.00117	37.92509	0.02939	0.00370	0.15185	0.00362	0.00235	45.11647	-0.00055
Mean	-0.00161	37.87133	0.02934	0.00309	0.15175	0.00365	0.00234	44.94355	-0.00038
%RSD	38.86835	0.20078	0.25395	27.93155	0.09721	1.11314	0.18118	0.54413	64.83784

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.01277	0.01627	0.02079	86.62553	6.86172	0.04593	16.36176	1.06571	0.00735
#2	0.01304	0.01665	0.02115	87.09526	6.85618	0.04584	16.38889	1.07066	0.00899
Mean	0.01291	0.01646	0.02097	86.86039	6.85895	0.04589	16.37533	1.06819	0.00817
%RSD	1.48044	1.61481	1.22340	0.38239	0.05712	0.13550	0.11713	0.32749	14.16922

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	0.01337	0.01094	1.82946	0.10134	0.10988	11.81522	-0.00267	0.11524	0.13329
#2	0.01126	0.01125	1.83360	0.10628	0.10743	11.89536	-0.00278	0.10394	0.13330
Mean	0.01231	0.01109	1.83153	0.10381	0.10866	11.85529	-0.00273	0.10959	0.13330
%RSD	12.07212	1.94523	0.15975	3.36142	1.59435	0.47800	2.91450	7.28749	0.00521

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	2.52034	0.00111	0.10875	0.03954	0.11718	-0.00410	1.25678	0.66390	0.16087
#2	2.53745	0.00233	0.10894	0.03651	0.11973	0.00430	1.25783	0.66543	0.16087
Mean	2.52890	0.00172	0.10885	0.03802	0.11846	0.00010	1.25731	0.66466	0.16087
%RSD	0.47854	50.36454	0.12041	5.63525	1.51949	5914.59954	0.05927	0.16281	0.00000

	Zr ppm	Pb calc	Se calc
#1	0.03166	0.10704	0.12728
#2	0.03188	0.10705	0.12353
Mean	0.03177	0.10704	0.12540
%RSD	0.48238	0.00605	2.11700

Method : Paragon File : 111118A

Printed : 11/21/2011 12:55:46

SampleId1 : CCV SampleId2 :

[CV]

Analysis commenced : 11/18/2011 18:57:53

Dilution ratio : 1.00000 to 1.00000 Tray :

Position : STD6

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	0.19870	52.44778	0.51374	1.01488	1.02732	0.47393	0.53664	47.79053	0.50215
#2	0.19754	52.36351	0.51374	1.01465	1.02285	0.47418	0.53610	47.94929	0.50038

Mean	0.19812	52.40565	0.51374	1.01477	1.02508	0.47405	0.53637	47.86991	0.50126
%RSD	0.41275	0.11371	0.00000	0.01601	0.30831	0.03711	0.07135	0.23451	0.24847
	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	0.47917	0.96000	1.04137	19.73368	49.29620	0.52252	50.01759	0.96069	0.98322
#2	0.47944	0.96179	1.03841	19.73368	49.05942	0.51972	49.95947	0.96134	0.98116
Mean	0.47930	0.96089	1.03989	19.73368	49.17781	0.52112	49.98853	0.96101	0.98219
%RSD	0.03989	0.13198	0.20167	0.00000	0.34046	0.37990	0.08221	0.04800	0.14827
	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	49.00647	0.99233	5.02373	0.98479	0.98482	5.19564	0.50029	1.03419	1.02521
#2	48.83085	0.99168	4.99963	0.97926	0.98926	5.17652	0.49802	1.02893	1.02883
Mean	48.91866	0.99201	5.01168	0.98203	0.98704	5.18608	0.49915	1.03156	1.02702
%RSD	0.25385	0.04615	0.34000	0.39838	0.31800	0.26073	0.32106	0.36039	0.24898
	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	4.95100	1.05031	0.50514	0.30065	0.47771	0.53433	4.96405	0.48113	0.92865
#2	4.95730	1.04661	0.50362	0.30490	0.47765	0.52768	4.91246	0.48162	0.94018
Mean	4.95415	1.04846	0.50438	0.30277	0.47768	0.53100	4.93826	0.48138	0.93441
%RSD	0.08998	0.24988	0.21288	0.99434	0.00884	0.88484	0.73872	0.07239	0.87218
	Zr	Pb	Se						
	ppm	calc	calc						
#1	0.98561	0.98481	1.02820						
#2	0.98261	0.98593	1.02886						
Mean	0.98411	0.98537	1.02853						
%RSD	0.21568	0.08026	0.04546						

Method : Paragon File : 111118A
SampleId1 : CCB SampleId2 :
Analysis commenced : 11/18/2011 18:59:49
Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:46
[CB]

Position : STD2

Final concentrations

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	ppm								
#1	-0.00092	0.04251	-0.00232	-0.00591	-0.00092	0.00048	-0.00175	-0.05713	-0.00064
#2	-0.00009	0.06300	-0.00063	-0.00454	-0.00054	0.00056	0.00085	-0.03237	-0.00050
Mean	-0.00051	0.05276	-0.00147	-0.00522	-0.00073	0.00052	-0.00045	-0.04475	-0.00057
%RSD	115.13259	27.47232	80.83322	18.58218	36.29236	10.05038	409.10895	39.12173	17.65299
	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm								
#1	-0.00068	-0.00079	-0.00166	0.00540	-0.23944	-0.00181	-0.04303	-0.00049	0.00015
#2	-0.00033	-0.00014	-0.00158	0.02550	-0.22447	-0.00172	-0.02603	0.00006	0.00170
Mean	-0.00051	-0.00047	-0.00162	0.01545	-0.23195	-0.00177	-0.03453	-0.00021	0.00093

%RSD	48.18583	99.22551	3.64882	92.01408	4.56309	3.66181	34.82881	183.35728	118.77313
	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	ppm								
#1	-0.16834	-0.00137	-0.01819	-0.00323	0.00023	-0.04464	-0.00182	0.00483	0.00010
#2	-0.16039	-0.00059	-0.01341	0.00175	-0.00090	-0.01926	0.00014	-0.00387	0.00113
Mean	-0.16436	-0.00098	-0.01580	-0.00074	-0.00034	-0.03195	-0.00084	0.00048	0.00061
%RSD	3.42182	56.40525	21.37646	476.72876	236.68732	56.17008	165.70532	1280.94005	118.06383
	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm								
#1	-0.02279	-0.00490	-0.00173	0.00123	-0.00295	-0.00247	-0.03845	-0.00058	-0.00192
#2	-0.01977	-0.00039	-0.00152	0.00576	-0.00281	0.00365	-0.02885	0.00008	-0.00091
Mean	-0.02128	-0.00264	-0.00162	0.00350	-0.00288	0.00059	-0.03365	-0.00025	-0.00141
%RSD	10.04090	120.51930	9.06134	91.69081	3.41709	730.96857	20.16901	183.56555	50.51616
	Zr	Pb	Se						
	ppm	calc	calc						
#1	0.00006	-0.00093	0.00168						
#2	0.00034	-0.00001	-0.00054						
Mean	0.00020	-0.00047	0.00057						
%RSD	97.32355	137.12929	274.56288						

Method : Paragon File : 111118A
SampleId1 : 1111162-8 SampleId2 :
Analysis commenced : 11/18/2011 19:01:47
Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:46
[SAMPLE]

Position : TUBE31

Final concentrations

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00121	36.72138	0.04477	0.00401	0.59946	0.00455	-0.00092	109.11728	0.00003
#2	-0.00090	36.34385	0.03223	0.00500	0.59426	0.00448	0.00411	109.17230	0.00020
Mean	-0.00105	36.53262	0.03850	0.00450	0.59686	0.00452	0.00159	109.14479	0.00012
%RSD	21.08598	0.73074	23.02820	15.57904	0.61624	1.11102	222.90382	0.03565	99.43521
	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	0.03904	0.03506	0.05232	110.87857	7.44165	0.05130	35.55178	1.44428	0.00367
#2	0.03904	0.03484	0.05259	110.76885	7.36302	0.05074	35.39537	1.44241	0.00440
Mean	0.03904	0.03495	0.05246	110.82371	7.40233	0.05102	35.47358	1.44335	0.00404
%RSD	0.00599	0.44815	0.36391	0.07000	0.75108	0.77980	0.31178	0.09194	12.90580
	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	0.24367	0.05316	2.57996	0.06317	0.06823	2.71558	0.00249	-0.01012	0.00935
#2	0.23518	0.05428	2.55665	0.06512	0.06639	2.74420	-0.00375	-0.01112	0.00746
Mean	0.23943	0.05372	2.56830	0.06414	0.06731	2.72989	-0.00063	-0.01062	0.00840
%RSD	2.50536	1.47319	0.64187	2.15134	1.92863	0.74138	702.44891	6.61665	15.95527

ted: 11/21/2011 12:56:08 User: MIKE LUNDGREEN

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	1.94952	0.00270	0.36638	0.05256	0.16142	0.00507	0.09134	0.10719	0.23327
#2	1.93394	0.00106	0.36376	0.05844	0.15953	0.00873	0.09485	0.10713	0.23360
Mean	1.94173	0.00188	0.36507	0.05550	0.16048	0.00690	0.09309	0.10716	0.23343
%RSD	0.56724	61.64027	0.50757	7.49327	0.83254	37.47818	2.66427	0.04104	0.10203

	Zr ppm	Pb calc	Se calc
#1	0.03736	0.06654	0.00287
#2	0.03651	0.06597	0.00127
Mean	0.03694	0.06626	0.00207
%RSD	1.62282	0.61333	54.53390

Method : Paragon

File : 111118A

Printed : 11/21/2011 12:55:47

SampleId1 : 1111162-9

SampleId2 :

[SAMPLE]

Analysis commenced : 11/18/2011 19:03:39

Dilution ratio : 1.00000 to 1.00000 Tray :

Position : TUBE32

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00177	56.39527	0.03624	0.01179	0.78080	0.00556	0.00435	122.95577	0.00017
#2	-0.00187	56.20459	0.04224	0.01438	0.77605	0.00556	0.00470	123.14258	0.00015
Mean	-0.00182	56.29993	0.03924	0.01308	0.77843	0.00556	0.00453	123.04918	0.00016
%RSD	4.06836	0.23948	10.82316	14.01835	0.43153	0.06942	5.41208	0.10735	9.85435

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.04066	0.04962	0.07533	124.71694	22.25878	0.06975	43.24562	1.59007	0.00440
#2	0.04148	0.04962	0.07551	124.73651	22.11777	0.06934	43.11331	1.58838	0.00342
Mean	0.04107	0.04962	0.07542	124.72672	22.18828	0.06955	43.17946	1.58922	0.00391
%RSD	1.41158	0.00105	0.17147	0.01110	0.44938	0.41100	0.21668	0.07531	17.74758

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	0.52060	0.06682	3.89734	0.08021	0.09000	3.96289	-0.00329	-0.01087	0.01778
#2	0.51748	0.06594	3.85177	0.08299	0.08809	3.90877	0.00283	-0.01352	0.01310
Mean	0.51904	0.06638	3.87456	0.08160	0.08904	3.93583	-0.00023	-0.01220	0.01544
%RSD	0.42410	0.93928	0.83167	2.41321	1.51356	0.97233	1882.57999	15.38003	21.44327

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	3.13684	0.00556	0.40320	0.06179	0.16618	-0.00156	0.08535	0.13661	0.30571
#2	3.12301	0.00474	0.40163	0.06482	0.16589	0.00905	0.08396	0.13624	0.30773
Mean	3.12992	0.00515	0.40242	0.06330	0.16603	0.00375	0.08466	0.13642	0.30672
%RSD	0.31246	11.24920	0.27649	3.37903	0.12282	200.09329	1.15808	0.18901	0.46622

	Zr ppm	Pb calc	SeUNDGREEN calc
#1	0.02088	0.08674	0.00824
#2	0.02122	0.08639	0.00423
Mean	0.02105	0.08656	0.00623
%RSD	1.13200	0.28091	45.43685

Method : Paragon File : 111118A Printed : 11/21/2011 12:55:47
SampleId1 : 1111162-10 SampleId2 : [SAMPLE]
Analysis commenced : 11/18/2011 19:05:29
Dilution ratio : 1.00000 to 1.00000 Tray : Position : TUBE33

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00126	35.15581	0.02075	0.00462	0.38299	0.00364	-0.00125	76.68845	-0.00003
#2	-0.00050	34.98796	0.02222	0.00568	0.38148	0.00361	0.00448	76.77422	0.00015
Mean	-0.00088	35.07189	0.02149	0.00515	0.38224	0.00362	0.00162	76.73133	0.00006
%RSD	61.03739	0.33841	4.85337	14.66490	0.27864	0.49401	250.62920	0.07903	213.10604

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.02182	0.02834	0.03741	82.71893	9.02724	0.03891	24.43888	1.32118	0.00211
#2	0.02250	0.02942	0.03720	82.67488	8.97699	0.03868	24.37936	1.32155	0.00097
Mean	0.02216	0.02888	0.03730	82.69691	9.00212	0.03880	24.40912	1.32137	0.00154
%RSD	2.19272	2.64568	0.39318	0.03767	0.39475	0.41674	0.17241	0.02005	52.62489

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	0.09595	0.03125	2.57442	0.05445	0.05934	4.10617	-0.00002	0.01251	0.02179
#2	0.09501	0.03247	2.55157	0.05938	0.05714	4.10935	0.00314	0.00951	0.02349
Mean	0.09548	0.03186	2.56300	0.05691	0.05824	4.10776	0.00156	0.01101	0.02264
%RSD	0.69713	2.70925	0.63044	6.13388	2.66085	0.05481	143.67200	19.25056	5.29230

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	3.71547	0.00635	0.19662	0.04804	0.19036	0.00716	0.10434	0.20468	0.17905
#2	3.67580	0.00266	0.19616	0.04759	0.18984	0.00276	0.13732	0.20622	0.17973
Mean	3.69563	0.00451	0.19639	0.04782	0.19010	0.00496	0.12083	0.20545	0.17939
%RSD	0.75911	57.85378	0.16715	0.66852	0.19607	62.76397	19.30416	0.53283	0.26540

	Zr ppm	Pb calc	Se calc
#1	0.02048	0.05771	0.01870
#2	0.02087	0.05789	0.01883
Mean	0.02067	0.05780	0.01877
%RSD	1.34236	0.22299	0.49839

Method : Paragon File : 111118A Printed : 11/21/2011 12:55:47

SampleId1 : 1111162-11 SampleId2 :
 Analysis commenced : 11/18/2011 19:07:19
 Dilution ratio : 1.00000 to 1.00000 Tray :

[SAMPLE]

Position : TUBE34

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00076	41.31233	0.02949	0.01148	0.47312	0.00428	0.00468	145.39039	-0.00028
#2	-0.00169	41.41234	0.03308	0.01026	0.47534	0.00426	0.00191	144.88605	-0.00031
Mean	-0.00123	41.36234	0.03128	0.01087	0.47423	0.00427	0.00330	145.13822	-0.00029
%RSD	53.62643	0.17096	8.09658	7.93931	0.33101	0.44460	59.49999	0.24571	5.90893
	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.03380	0.03602	0.04339	94.56362	12.57204	0.04659	38.12868	1.64614	0.00056
#2	0.03291	0.03555	0.04358	94.34255	12.63801	0.04674	38.09478	1.64312	0.00121
Mean	0.03335	0.03578	0.04348	94.45308	12.60502	0.04666	38.11173	1.64463	0.00088
%RSD	1.89654	0.92226	0.30497	0.16550	0.37006	0.21852	0.06289	0.12947	52.32262
	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	0.15748	0.04702	2.79824	0.06621	0.06760	2.22594	0.00147	-0.00133	0.00639
#2	0.15986	0.04861	2.77467	0.06310	0.06964	2.25455	-0.00194	-0.00977	0.00762
Mean	0.15867	0.04782	2.78645	0.06466	0.06862	2.24024	-0.00023	-0.00555	0.00701
%RSD	1.06166	2.35704	0.59820	3.40423	2.10269	0.90303	1030.09961	107.46611	12.44518
	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	5.45257	-0.00023	0.29668	0.04329	0.21434	-0.00133	0.00633	0.09343	0.20700
#2	5.44761	0.00550	0.29747	0.04680	0.21572	0.00088	-0.00107	0.09322	0.20700
Mean	5.45009	0.00263	0.29708	0.04504	0.21503	-0.00022	0.00263	0.09333	0.20700
%RSD	0.06427	153.97341	0.18824	5.51056	0.45136	693.54838	199.15325	0.15649	0.00000
	Zr ppm	Pb calc	Se calc						
#1	0.01807	0.06714	0.00382						
#2	0.01728	0.06746	0.00183						
Mean	0.01767	0.06730	0.00282						
%RSD	3.16332	0.34091	49.71408						

Method : Paragon File : 111118A
 SampleId1 : 1111162-12 SampleId2 :
 Analysis commenced : 11/18/2011 19:09:09
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:47

[SAMPLE]

Position : TUBE35

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
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#1	-0.00107	60.74648	0.03308	0.00873	0.62203	0.00496	-0.00104	118.05202	-0.00025
#2	-0.00149	60.74161	0.03782	0.01034	0.61960	0.00493	0.00294	118.82617	0.00031
Mean	-0.00128	60.74405	0.03545	0.00954	0.62082	0.00495	0.00095	118.43909	0.00003
%RSD	22.90398	0.00567	9.45846	11.87910	0.27720	0.43881	296.90943	0.46219	1265.28780

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	0.03580	0.04994	0.06265	109.48055	19.34585	0.06155	41.36890	1.40535	0.00015
#2	0.03565	0.05041	0.06183	110.00200	19.22506	0.06117	41.34870	1.41117	0.00039
Mean	0.03573	0.05017	0.06224	109.74127	19.28546	0.06136	41.35880	1.40826	0.00027
%RSD	0.28372	0.66465	0.92797	0.33599	0.44287	0.44161	0.03452	0.29198	64.05895

	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	ppm	ppm							
#1	0.19051	0.05777	3.26919	0.08051	0.08421	2.50253	-0.00186	-0.01304	0.00992
#2	0.18796	0.05872	3.29005	0.07887	0.08347	2.54386	0.00292	-0.01209	0.01079
Mean	0.18923	0.05824	3.27962	0.07969	0.08384	2.52319	0.00053	-0.01257	0.01036
%RSD	0.95259	1.15284	0.44969	1.45658	0.62500	1.15839	637.21945	5.32691	5.95494

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm								
#1	3.47549	-0.00020	0.28900	0.05604	0.18162	0.00564	0.02501	0.12252	0.24404
#2	3.48857	0.00144	0.28803	0.06305	0.18271	0.00696	0.02328	0.12274	0.24640
Mean	3.48203	0.00062	0.28852	0.05954	0.18216	0.00630	0.02414	0.12263	0.24522
%RSD	0.26558	185.82906	0.23939	8.33137	0.42079	14.80060	5.06144	0.12908	0.67993

	Zr	Pb	Se
	ppm	calc	calc
#1	0.02783	0.08298	0.00228
#2	0.02755	0.08193	0.00317
Mean	0.02769	0.08245	0.00272
%RSD	0.71296	0.89262	23.28745

Method : Paragon File : 111118A
SampleId1 : 1111162-13 SampleId2 :
Analysis commenced : 11/18/2011 19:11:00
Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:47
[SAMPLE]

Position : TUBE36

Final concentrations

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00252	108.30214	0.05573	0.00568	0.96704	0.00848	0.00756	111.29018	0.00005
#2	-0.00262	107.16867	0.05362	0.00706	0.96017	0.00842	0.00877	110.88612	0.00078
Mean	-0.00257	107.73541	0.05468	0.00637	0.96361	0.00845	0.00816	111.08815	0.00042
%RSD	2.80436	0.74393	2.72596	15.24223	0.50397	0.48196	10.44654	0.25720	122.79363

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	0.06112	0.08709	0.12100	186.18581	33.12495	0.11609	40.99995	2.04596	0.00318

#2	0.06077	0.08719	0.11964	185.62111	32.79643	0.11487	40.74990	2.03697	0.00179
Mean	0.06094	0.08714	0.12032	185.90346	32.96069	0.11548	40.87492	2.04146	0.00248
%RSD	0.40699	0.07832	0.79940	0.21479	0.70477	0.74598	0.43257	0.31135	39.65789

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	0.58015	0.10234	3.46558	0.12047	0.13178	3.95016	-0.00209	-0.02066	0.01626
#2	0.57409	0.10071	3.40365	0.12459	0.13557	3.97881	-0.00223	-0.02641	0.01393
Mean	0.57712	0.10152	3.43461	0.12253	0.13368	3.96448	-0.00216	-0.02353	0.01509
%RSD	0.74281	1.13406	1.27496	2.37692	2.00514	0.51106	4.42622	17.24878	10.90989

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	3.85545	0.00598	0.51481	0.10534	0.15461	0.00460	0.03457	0.18840	0.42441
#2	3.80706	0.00189	0.51167	0.10305	0.15315	0.00456	0.03015	0.18686	0.42610
Mean	3.83125	0.00393	0.51324	0.10419	0.15388	0.00458	0.03236	0.18763	0.42525
%RSD	0.89311	73.61767	0.43297	1.55292	0.67173	0.60349	9.66157	0.58142	0.28052

	Zr ppm	Pb calc	Se calc
#1	0.03506	0.12802	0.00396
#2	0.03521	0.13192	0.00050
Mean	0.03514	0.12997	0.00223
%RSD	0.31237	2.12186	109.87385

Method : Paragon File : 111118A
SampleId1 : 1111162-14 SampleId2 :
Analysis commenced : 11/18/2011 19:12:50
Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:48
[SAMPLE]

Position : TUBE37

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00191	106.74513	0.05837	0.00919	1.06903	0.00861	0.01040	214.06198	0.00076
#2	-0.00192	107.13518	0.06153	0.00820	1.07262	0.00861	0.00763	213.63389	0.00074
Mean	-0.00192	106.94016	0.05995	0.00870	1.07082	0.00861	0.00901	213.84794	0.00075
%RSD	0.37819	0.25791	3.72977	8.06325	0.23680	0.04882	21.73877	0.14155	2.03724

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.06417	0.08810	0.12673	191.45304	29.73396	0.12748	51.02210	2.43391	0.00269
#2	0.06411	0.08822	0.12736	191.47724	29.81720	0.12798	51.06964	2.43581	0.00367
Mean	0.06414	0.08816	0.12705	191.46514	29.77558	0.12773	51.04587	2.43486	0.00318
%RSD	0.06917	0.09513	0.34857	0.00894	0.19766	0.27785	0.06586	0.05525	21.86302

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	0.68861	0.10390	4.39099	0.12737	0.13632	5.68018	0.00291	-0.02886	0.01818
#2	0.69206	0.10529	4.43226	0.12679	0.13840	5.74395	0.00072	-0.02343	0.01622

Mean	0.69034	0.10459	4.41163	0.12708	0.13736	5.71207	0.00181	-0.02614	0.01720
%RSD	0.35359	0.94026	0.66157	0.32519	1.07198	0.78943	85.63096	14.69491	8.03442

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm								
#1	4.13240	0.00186	0.62727	0.10161	0.17931	0.00207	0.02824	0.18221	0.44499
#2	4.12438	0.00308	0.62913	0.09858	0.17880	-0.00032	0.04127	0.18300	0.44567
Mean	4.12839	0.00247	0.62820	0.10010	0.17906	0.00088	0.03475	0.18260	0.44533
%RSD	0.13738	35.19855	0.20958	2.14008	0.20422	192.50079	26.50902	0.30310	0.10717

	Zr	Pb	Se
	ppm	calc	calc
#1	0.02886	0.13334	0.00251
#2	0.02916	0.13453	0.00302
Mean	0.02901	0.13394	0.00277
%RSD	0.73265	0.63054	12.92727

Method : Paragon

File : 111118A

Printed : 11/21/2011 12:55:48

SampleId1 : 1111162-15

SampleId2 :

[SAMPLE]

Analysis commenced : 11/18/2011 19:14:40

Dilution ratio : 1.00000 to 1.00000 Tray :

Position : TUBE38

Final concentrations

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00202	51.40576	0.04962	0.00599	0.51175	0.00509	0.00180	92.81583	0.00021
#2	-0.00238	51.39439	0.03824	0.00767	0.51200	0.00506	0.00093	92.60326	0.00008
Mean	-0.00220	51.40008	0.04393	0.00683	0.51188	0.00508	0.00136	92.70954	0.00015
%RSD	11.77243	0.01565	18.31922	17.38058	0.03473	0.48468	45.07115	0.16213	64.41286

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	0.03388	0.07031	0.06093	109.47957	13.89653	0.06396	28.08881	1.44091	0.01562
#2	0.03326	0.06990	0.06074	109.24171	13.85434	0.06383	28.05967	1.43941	0.01554
Mean	0.03357	0.07011	0.06084	109.36064	13.87543	0.06390	28.07424	1.44016	0.01558
%RSD	1.30094	0.41342	0.21456	0.15380	0.21499	0.14005	0.07340	0.07371	0.37157

	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	ppm	ppm	ppm						
#1	0.25531	0.54835	2.65916	0.08432	0.08992	5.16058	-0.00047	-0.00084	0.03249
#2	0.25404	0.54172	2.68849	0.08394	0.09288	5.13508	-0.00279	0.00954	0.03883
Mean	0.25467	0.54504	2.67382	0.08413	0.09140	5.14783	-0.00163	0.00435	0.03566
%RSD	0.35412	0.86015	0.77571	0.32438	2.29424	0.35021	100.86738	168.82149	12.57599

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	2.82715	0.00231	0.32765	0.06967	0.13826	-0.00272	0.59767	0.26186	0.26055
#2	2.81928	-0.00301	0.32756	0.06889	0.13754	-0.00262	0.60127	0.26116	0.25988
Mean	2.82321	-0.00035	0.32760	0.06928	0.13790	-0.00267	0.59947	0.26151	0.26021

%RSD	0.19705	1077.00593	0.02010	0.78925	0.37222	2.72209	0.42412	0.18977	0.18310
	Zr	Pb	Se						
	ppm	calc	calc						
#1	0.03359	0.08805	0.02139						
#2	0.03327	0.08990	0.02907						
Mean	0.03343	0.08898	0.02523						
%RSD	0.67365	1.46974	21.53987						

Method : Paragon File : 111118A
SampleId1 : IP111118-2MB SampleId2 :
Analysis commenced : 11/18/2011 19:16:48
Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:48
[SAMPLE]

Position : TUBE39

Final concentrations

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00056	0.06887	0.00095	-0.00713	-0.00079	0.00035	0.00276	0.00966	-0.00081
#2	-0.00087	0.07561	-0.00168	-0.00805	-0.00075	0.00036	-0.00123	0.01715	-0.00097
Mean	-0.00071	0.07224	-0.00037	-0.00759	-0.00077	0.00035	0.00076	0.01341	-0.00089
%RSD	30.84489	6.59850	505.63303	8.52826	3.81492	0.94400	370.46683	39.48273	12.24475

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00061	-0.00070	-0.00193	0.09093	-0.26912	-0.00203	-0.03900	0.00034	-0.00092
#2	-0.00081	-0.00123	-0.00220	0.10176	-0.27436	-0.00203	-0.03587	0.00052	-0.00051
Mean	-0.00071	-0.00097	-0.00207	0.09635	-0.27174	-0.00203	-0.03744	0.00043	-0.00071
%RSD	20.47703	38.81232	9.17209	7.94821	1.36316	0.24550	5.91727	30.17879	40.69209

	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.18679	-0.00157	-0.01228	0.00005	0.00014	-0.02878	-0.00134	-0.00111	-0.00337
#2	-0.18668	-0.00164	-0.01455	-0.00054	0.00027	-0.03512	-0.00366	-0.00288	-0.00099
Mean	-0.18673	-0.00160	-0.01341	-0.00024	0.00020	-0.03195	-0.00250	-0.00199	-0.00218
%RSD	0.04182	2.98777	11.99206	172.41227	46.98833	14.04249	65.53454	62.90777	77.43561

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.02179	0.00739	-0.00161	0.00663	-0.00285	-0.00323	-0.03370	-0.00073	0.00077
#2	-0.02039	-0.00080	-0.00159	0.00207	-0.00299	-0.00113	-0.03920	-0.00040	-0.00024
Mean	-0.02109	0.00330	-0.00160	0.00435	-0.00292	-0.00218	-0.03645	-0.00057	0.00027
%RSD	4.68944	175.75147	1.02136	74.12234	3.37055	68.27036	10.66890	41.20489	264.92144

	Zr	Pb	Se
	ppm	calc	calc
#1	-0.00089	0.00011	-0.00262
#2	-0.00066	0.00000	-0.00162
Mean	-0.00078	0.00005	-0.00212
%RSD	20.49747	142.65873	33.47278

ted: 11/21/2011 12:56:08 User: MIKE LUNDGREEN
 Method : Paragon File : 111118A
 SampleId1 : IP111118-2RVS SampleId2 :
 Analysis commenced : 11/18/2011 19:18:38
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:48
 [SAMPLE]
 Position : TUBE40

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	0.00971	1.04966	0.04540	0.04604	0.04866	0.01016	0.10644	4.66520	0.01897
#2	0.00913	1.07058	0.04920	0.04429	0.04874	0.01008	0.09847	4.68639	0.01938
Mean	0.00942	1.06012	0.04730	0.04516	0.04870	0.01012	0.10245	4.67579	0.01918
%RSD	4.35723	1.39545	5.67138	2.74742	0.12102	0.54243	5.50345	0.32040	1.52542
	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.01925	0.04688	0.04849	0.95542	7.71136	0.03900	4.88134	0.04705	0.09488
#2	0.01883	0.04694	0.04803	0.98693	7.70203	0.03895	4.88718	0.04760	0.09791
Mean	0.01904	0.04691	0.04826	0.97117	7.70669	0.03897	4.88426	0.04733	0.09639
%RSD	1.53019	0.08854	0.67450	2.29436	0.08559	0.09574	0.08449	0.82460	2.22297
	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	8.24862	0.04732	0.98898	0.04908	0.04769	1.00275	0.09534	0.05270	0.05380
#2	8.23590	0.04749	0.97731	0.04535	0.04541	1.00910	0.09574	0.05485	0.05253
Mean	8.24226	0.04741	0.98314	0.04722	0.04655	1.00593	0.09554	0.05377	0.05316
%RSD	0.10915	0.25290	0.83916	5.59443	3.46390	0.44642	0.29112	2.82477	1.69218
	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	0.27150	0.10075	0.04807	0.00064	0.04500	0.10257	0.46213	0.04763	0.04817
#2	0.27428	0.09911	0.04814	0.00148	0.04465	0.10388	0.46966	0.04743	0.04918
Mean	0.27289	0.09993	0.04810	0.00106	0.04482	0.10323	0.46589	0.04753	0.04868
%RSD	0.72028	1.15960	0.10205	55.45743	0.56456	0.90325	1.14316	0.29528	1.46532
	Zr ppm	Pb calc	Se calc						
#1	0.04757	0.04815	0.05343						
#2	0.04788	0.04539	0.05330						
Mean	0.04772	0.04677	0.05337						
%RSD	0.44812	4.18012	0.17654						

Method : Paragon File : 111118A
 SampleId1 : CCV SampleId2 :
 Analysis commenced : 11/18/2011 19:20:57
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:48
 [CV]
 Position : STD6

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	0.19768	52.70973	0.51342	1.01542	1.02829	0.47351	0.53509	47.77841	0.50279
#2	0.19940	52.54210	0.51756	1.01702	1.02449	0.47444	0.54598	48.04966	0.50448
Mean	0.19854	52.62592	0.51549	1.01622	1.02639	0.47397	0.54054	47.91404	0.50363
%RSD	0.61189	0.22524	0.56764	0.11190	0.26144	0.13823	1.42488	0.40030	0.23790

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.47889	0.96093	1.04923	19.66721	49.42445	0.52475	50.11170	0.95761	0.97885
#2	0.48214	0.96505	1.04139	19.71247	49.17170	0.52137	50.03743	0.96162	0.97720
Mean	0.48052	0.96299	1.04531	19.68984	49.29807	0.52306	50.07456	0.95962	0.97803
%RSD	0.47757	0.30269	0.53078	0.16254	0.36253	0.45595	0.10488	0.29531	0.11911

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	49.22369	0.99492	5.05555	0.98467	0.98915	5.19883	0.50644	1.03760	1.02279
#2	49.01498	0.99584	5.05696	0.98834	0.98217	5.18608	0.50576	1.04677	1.03493
Mean	49.11933	0.99538	5.05625	0.98651	0.98566	5.19245	0.50610	1.04218	1.02886
%RSD	0.30045	0.06537	0.01964	0.26346	0.50054	0.17361	0.09449	0.62205	0.83481

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	4.96949	1.04373	0.50708	0.31467	0.47696	0.54119	4.92970	0.48104	0.92662
#2	4.96398	1.04826	0.50605	0.31003	0.47642	0.53421	4.94618	0.48236	0.93204
Mean	4.96673	1.04599	0.50656	0.31235	0.47669	0.53770	4.93794	0.48170	0.92933
%RSD	0.07834	0.30617	0.14349	1.05055	0.07973	0.91888	0.23596	0.19419	0.41266

	Zr ppm	Pb calc	Se calc
#1	0.98440	0.98765	1.02772
#2	0.98393	0.98422	1.03888
Mean	0.98416	0.98594	1.03330
%RSD	0.03329	0.24598	0.76335

Method : Paragon

File : 111118A

Printed : 11/21/2011 12:55:48

SampleId1 : CCB

SampleId2 :

[CB]

Analysis commenced : 11/18/2011 19:22:54

Dilution ratio : 1.00000 to 1.00000 Tray :

Position : STD2

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00030	0.04260	0.00579	-0.00454	-0.00050	0.00032	0.00068	-0.03871	-0.00056
#2	-0.00035	0.02790	-0.00253	-0.00568	-0.00083	0.00024	0.00033	-0.05684	-0.00058
Mean	-0.00033	0.03525	0.00163	-0.00511	-0.00067	0.00028	0.00050	-0.04777	-0.00057
%RSD	11.13622	29.48652	360.28558	15.83186	35.27762	21.81573	48.49388	26.84536	2.41782

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
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	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00047	-0.00079	-0.00130	0.01669	-0.23295	-0.00175	-0.02826	-0.00003	0.00015
#2	-0.00026	-0.00029	-0.00112	0.00504	-0.25091	-0.00184	-0.03945	-0.00040	-0.00018
Mean	-0.00037	-0.00054	-0.00121	0.01087	-0.24193	-0.00180	-0.03386	-0.00021	-0.00002
%RSD	39.60472	65.23040	10.61695	75.83801	5.24978	3.32712	23.36804	122.23801	1500.62053

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	-0.15856	-0.00106	-0.00249	0.00011	0.00091	-0.03512	-0.00341	-0.00135	0.00300
#2	-0.16768	-0.00062	-0.01205	-0.00053	-0.00008	-0.03195	0.00001	0.00193	0.00019
Mean	-0.16312	-0.00084	-0.00727	-0.00021	0.00042	-0.03354	-0.00170	0.00029	0.00159
%RSD	3.95075	37.01649	92.91611	213.27639	168.56993	6.68913	142.01861	798.49974	124.86276

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	-0.01951	-0.00121	-0.00153	0.00228	-0.00257	-0.00066	-0.03502	-0.00058	0.00010
#2	-0.01712	-0.00162	-0.00169	0.00609	-0.00266	-0.00316	-0.03433	-0.00054	-0.00057
Mean	-0.01831	-0.00141	-0.00161	0.00418	-0.00262	-0.00191	-0.03468	-0.00056	-0.00024
%RSD	9.25214	20.46455	7.09825	64.45417	2.41787	92.68088	1.41616	4.86858	202.24255

	Zr ppm	Pb calc	Se calc
#1	0.00051	0.00064	0.00155
#2	0.00013	-0.00023	0.00077
Mean	0.00032	0.00021	0.00116
%RSD	82.57556	297.86977	47.78723

Method : Paragon File : 111118A
SampleId1 : IP111118-2LCS SampleId2 :
Analysis commenced : 11/18/2011 19:24:55
Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:49

[SAMPLE]

Position : TUBE41

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	0.08950	2.16515	2.03191	0.50361	2.02787	0.04864	-0.00797	36.60771	0.04698
#2	0.08857	2.16573	2.02887	0.49994	2.03496	0.04849	-0.00277	36.38933	0.04667
Mean	0.08903	2.16544	2.03039	0.50177	2.03142	0.04857	-0.00537	36.49852	0.04683
%RSD	0.73864	0.01886	0.10572	0.51698	0.24655	0.21390	68.49203	0.42309	0.45985

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.47497	0.18760	0.25336	0.95566	36.36646	0.49205	37.85982	0.48011	0.96880
#2	0.47346	0.18679	0.25464	0.95470	36.42215	0.49344	37.82501	0.47853	0.97061
Mean	0.47421	0.18719	0.25400	0.95518	36.39431	0.49274	37.84242	0.47932	0.96971
%RSD	0.22552	0.30579	0.35724	0.07095	0.10818	0.19954	0.06504	0.23214	0.13214

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
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#1	37.22513	0.48866	-0.01410	0.49238	0.49406	-0.04147	0.48871	2.17082	2.13955
#2	37.22138	0.48291	-0.00522	0.48849	0.49739	-0.03512	0.49381	2.18172	2.15418
Mean	37.22325	0.48578	-0.00966	0.49043	0.49572	-0.03829	0.49126	2.17627	2.14686
%RSD	0.00713	0.83613	64.94362	0.56183	0.47472	11.71577	0.73439	0.35419	0.48170

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	2.03859	0.51909	0.50177	-0.01830	0.47753	2.10540	-0.04733	0.48443	0.47267
#2	2.03634	0.51457	0.50293	-0.02035	0.47821	2.10398	-0.06038	0.48226	0.46862
Mean	2.03747	0.51683	0.50235	-0.01933	0.47787	2.10469	-0.05386	0.48334	0.47065
%RSD	0.07820	0.61810	0.16276	7.50244	0.10016	0.04763	17.12576	0.31844	0.60858

	Zr	Pb	Se
	ppm	calc	calc
#1	0.00287	0.49350	2.14996
#2	0.00252	0.49442	2.16335
Mean	0.00270	0.49396	2.15666
%RSD	9.00859	0.13201	0.43885

Method : Paragon File : 111118A
SampleId1 : 1111071-1 SampleId2 :
Analysis commenced : 11/18/2011 19:26:47
Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:49
[SAMPLE]

Position : TUBE42

Final concentrations

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00030	0.08359	0.00074	0.01362	0.04632	0.00031	-0.00520	46.16468	-0.00073
#2	0.00022	0.09424	0.00063	0.01476	0.04661	0.00035	-0.00623	46.05064	-0.00029
Mean	-0.00004	0.08891	0.00068	0.01419	0.04647	0.00033	-0.00572	46.10766	-0.00051
%RSD	974.59645	8.47222	10.87236	5.70246	0.44386	10.02456	12.84175	0.17488	60.56103

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00110	-0.00051	0.00524	0.07713	1.49739	0.00423	12.84188	0.02590	0.01038
#2	-0.00048	-0.00045	0.00561	0.08046	1.50189	0.00433	12.84098	0.02617	0.01022
Mean	-0.00079	-0.00048	0.00543	0.07879	1.49964	0.00428	12.84143	0.02604	0.01030
%RSD	55.62614	8.97204	4.71099	2.99000	0.21223	1.62822	0.00497	0.74923	1.12411

	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	8.47435	-0.00062	0.17048	-0.00246	-0.00136	10.45367	-0.00480	-0.00565	-0.00040
#2	8.47917	-0.00082	0.16115	0.00068	-0.00303	10.43446	-0.00272	-0.00211	-0.00235
Mean	8.47676	-0.00072	0.16581	-0.00089	-0.00220	10.44407	-0.00376	-0.00388	-0.00137
%RSD	0.04025	19.88749	3.98129	250.57665	53.97612	0.13006	39.11739	64.44930	100.76174

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	3.20127	-0.00162	0.13432	-0.00929	-0.00133	0.00207	-0.03232	-0.00049	0.01724

#2	3.19099	0.00084	0.13377	-0.01183	-0.00098	0.00138	-0.02957	-0.00008	0.01859
Mean	3.19613	-0.00039	0.13405	-0.01056	-0.00116	0.00173	-0.03095	-0.00028	0.01792
%RSD	0.22750	442.54713	0.28737	17.01454	21.29761	28.58635	6.26967	102.64373	5.30698

	Zr ppm	Pb calc	Se calc
#1	-0.00051	-0.00172	-0.00214
#2	-0.00040	-0.00180	-0.00227
Mean	-0.00045	-0.00176	-0.00221
%RSD	17.36842	2.92187	4.14513

Method : Paragon File : 111118A
 SampleId1 : 1111071-1D SampleId2 :
 Analysis commenced : 11/18/2011 19:28:39
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:49

[SAMPLE]

Position : TUBE43

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00045	0.09186	-0.00337	0.01293	0.04553	0.00044	-0.00520	45.20002	-0.00032
#2	-0.00082	0.08763	-0.00432	0.01316	0.04532	0.00039	-0.00433	45.14679	-0.00062
Mean	-0.00063	0.08974	-0.00384	0.01305	0.04543	0.00042	-0.00476	45.17341	-0.00047
%RSD	40.54939	3.32654	17.43681	1.24053	0.32431	8.02560	12.86798	0.08331	44.69575

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00089	-0.00127	0.00461	0.07618	1.45813	0.00406	12.61407	0.02526	0.00923
#2	-0.00034	-0.00089	0.00497	0.07820	1.44688	0.00407	12.60595	0.02535	0.01046
Mean	-0.00062	-0.00108	0.00479	0.07719	1.45251	0.00406	12.61001	0.02530	0.00985
%RSD	63.17839	24.80827	5.39686	1.85311	0.54774	0.06125	0.04553	0.25700	8.81623

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	8.38217	-0.00099	0.15773	-0.00092	-0.00020	10.18156	-0.00554	-0.00766	-0.00048
#2	8.30494	-0.00055	0.16798	-0.00380	0.00019	10.21357	-0.00149	-0.00401	-0.00133
Mean	8.34356	-0.00077	0.16285	-0.00236	0.00000	10.19756	-0.00351	-0.00584	-0.00091
%RSD	0.65456	40.25885	4.44906	86.18478	8367.17568	0.22196	81.49062	44.30083	66.43167

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	3.14252	0.00084	0.13227	-0.00591	-0.00128	-0.00323	-0.03300	-0.00065	0.01825
#2	3.12921	-0.00285	0.13176	-0.00712	-0.00134	-0.00003	-0.03575	-0.00061	0.01724
Mean	3.13586	-0.00101	0.13201	-0.00651	-0.00131	-0.00163	-0.03438	-0.00063	0.01775
%RSD	0.30019	258.89424	0.27316	13.19519	3.22134	138.94018	5.65132	4.63337	4.01793

	Zr ppm	Pb calc	Se calc
#1	-0.00074	-0.00044	-0.00287
#2	-0.00061	-0.00114	-0.00222

Mean -0.00068 -0.00079 -0.00255UNDGREEN
 %RSD 13.92172 62.62354 18.02978

Method : Paragon File : 111118A
 SampleId1 : 1111071-1L 5X SampleId2 :
 Analysis commenced : 11/18/2011 19:30:30
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:49
 [SAMPLE]

Position : TUBE44

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00030	0.02888	0.00084	-0.00317	0.00812	0.00040	-0.00071	8.94272	-0.00087
#2	-0.00014	0.03440	-0.00653	-0.00309	0.00812	0.00036	0.00034	8.95295	-0.00084
Mean	-0.00022	0.03164	-0.00284	-0.00313	0.00812	0.00038	-0.00019	8.94783	-0.00085
%RSD	50.55348	12.33292	183.35201	1.72487	0.00000	7.26101	396.17103	0.08085	2.60310

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00046	-0.00105	-0.00057	0.00278	0.00683	-0.00104	2.47734	0.00448	-0.00034
#2	-0.00053	-0.00114	-0.00012	0.00195	0.00733	-0.00105	2.47869	0.00448	0.00105
Mean	-0.00049	-0.00109	-0.00035	0.00236	0.00708	-0.00104	2.47801	0.00448	0.00035
%RSD	9.93424	6.08310	93.00655	24.90202	4.98486	0.71527	0.03837	0.00000	278.80628

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	1.34532	-0.00110	0.02185	-0.00106	-0.00189	2.00026	-0.00133	-0.00261	-0.00143
#2	1.33904	-0.00157	0.02094	-0.00202	-0.00184	2.00026	-0.00401	0.00206	0.00112
Mean	1.34218	-0.00133	0.02139	-0.00154	-0.00186	2.00026	-0.00267	-0.00027	-0.00015
%RSD	0.33052	25.16823	3.00794	44.39032	1.69391	0.00000	70.89975	1204.14197	1167.65672

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	0.61211	0.00207	0.02511	0.00014	-0.00288	-0.00446	-0.03227	-0.00062	0.00178
#2	0.60946	-0.00531	0.02514	0.00116	-0.00266	-0.00796	-0.03227	-0.00087	0.00346
Mean	0.61078	-0.00162	0.02512	0.00065	-0.00277	-0.00621	-0.03227	-0.00075	0.00262
%RSD	0.30658	321.92031	0.09765	110.87445	5.58165	39.84075	0.00124	23.24728	45.32359

	Zr ppm	Pb calc	Se calc
#1	-0.00039	-0.00161	-0.00182
#2	-0.00049	-0.00190	0.00144
Mean	-0.00044	-0.00175	-0.00019
%RSD	14.59883	11.75546	1184.78034

Method : Paragon File : 111118A
 SampleId1 : 1111071-1MS SampleId2 :
 Analysis commenced : 11/18/2011 19:32:21
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:49
 [SAMPLE]

Position : TUBE45

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	0.09139	2.26837	2.05728	0.53135	2.09869	0.04901	-0.00274	83.67262	0.04744
#2	0.09153	2.25812	2.05837	0.53250	2.09382	0.04893	-0.00117	83.63309	0.04797
Mean	0.09146	2.26324	2.05783	0.53192	2.09625	0.04897	-0.00195	83.65286	0.04770
%RSD	0.11474	0.32033	0.03727	0.15242	0.16420	0.11758	56.69138	0.03341	0.78330

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.47597	0.18772	0.26664	1.04158	40.84444	0.53417	51.41585	0.50418	0.98107
#2	0.47396	0.18819	0.26763	1.04146	40.83524	0.53392	51.42647	0.50473	0.97498
Mean	0.47496	0.18795	0.26713	1.04152	40.83984	0.53405	51.42116	0.50446	0.97803
%RSD	0.29950	0.17487	0.26239	0.00814	0.01593	0.03264	0.01460	0.07788	0.44072

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	48.06613	0.49222	0.16638	0.49340	0.49468	10.41845	0.49761	2.20432	2.16386
#2	48.14393	0.49226	0.17435	0.49863	0.49750	10.37363	0.49594	2.18276	2.16899
Mean	48.10503	0.49224	0.17037	0.49601	0.49609	10.39604	0.49677	2.19354	2.16643
%RSD	0.11436	0.00488	3.30790	0.74624	0.40260	0.30487	0.23728	0.69498	0.16767

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	5.21016	0.51950	0.64244	-0.01804	0.47669	2.14374	-0.04602	0.48486	0.48685
#2	5.21699	0.52074	0.64067	-0.01781	0.47673	2.12792	-0.03435	0.48490	0.48752
Mean	5.21358	0.52012	0.64155	-0.01792	0.47671	2.13583	-0.04018	0.48488	0.48719
%RSD	0.09265	0.16747	0.19495	0.92179	0.00591	0.52368	20.53781	0.00599	0.09800

	Zr ppm	Pb calc	Se calc
#1	0.00042	0.49425	2.17733
#2	0.00047	0.49788	2.17358
Mean	0.00044	0.49606	2.17546
%RSD	7.97972	0.51702	0.12198

Method : Paragon

File : 111118A

Printed : 11/21/2011 12:55:50

SampleId1 : 1111071-1MSD

SampleId2 :

[SAMPLE]

Analysis commenced : 11/18/2011 19:34:14

Dilution ratio : 1.00000 to 1.00000 Tray :

Position : TUBE46

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	0.09138	2.28602	2.08017	0.53678	2.12171	0.04942	0.00058	84.54176	0.04829
#2	0.09133	2.28763	2.06455	0.53663	2.11910	0.04926	-0.00133	84.19548	0.04748
Mean	0.09135	2.28682	2.07236	0.53670	2.12040	0.04934	-0.00038	84.36862	0.04789
%RSD	0.03502	0.04985	0.53300	0.02014	0.08689	0.22912	359.09524	0.29022	1.19835

ted: 11/21/2011 12:56:08 User: MIKE LUNDGREEN

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.47778	0.19108	0.26972	1.04901	41.22852	0.53955	51.86972	0.51038	0.99714
#2	0.47751	0.18973	0.26937	1.04746	41.13176	0.53887	51.79306	0.50909	0.99005
Mean	0.47765	0.19040	0.26954	1.04824	41.18014	0.53921	51.83139	0.50973	0.99360
%RSD	0.04122	0.49958	0.09347	0.10513	0.16615	0.09015	0.10457	0.17985	0.50421

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	48.60118	0.49756	0.17139	0.49877	0.49688	10.50170	0.49548	2.21434	2.17318
#2	48.53307	0.49620	0.16342	0.49843	0.49254	10.43446	0.50324	2.21074	2.17727
Mean	48.56713	0.49688	0.16741	0.49860	0.49471	10.46808	0.49936	2.21254	2.17522
%RSD	0.09916	0.19349	3.36633	0.04877	0.62097	0.45418	1.09864	0.11514	0.13304

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	5.26418	0.52771	0.64937	-0.03273	0.48268	2.15675	-0.03641	0.49127	0.49326
#2	5.25589	0.52073	0.64835	-0.03565	0.48185	2.14415	-0.04602	0.49012	0.48955
Mean	5.26004	0.52422	0.64886	-0.03419	0.48227	2.15045	-0.04122	0.49069	0.49141
%RSD	0.11142	0.94153	0.11107	6.04872	0.12114	0.41450	16.48709	0.16575	0.53439

	Zr ppm	Pb calc	Se calc
#1	0.00091	0.49751	2.18688
#2	0.00083	0.49450	2.18841
Mean	0.00087	0.49600	2.18765
%RSD	6.12175	0.42943	0.04945

Method : Paragon File : 111118A
 SampleId1 : 1111104-1 10X SampleId2 :
 Analysis commenced : 11/18/2011 19:36:05
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:50
 [SAMPLE]
 Position : TUBE47

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	0.00017	0.00559	-0.00116	5.10701	0.29847	0.00022	-0.00036	28.18384	-0.00072
#2	-0.00060	0.00318	-0.00053	5.10313	0.29893	0.00019	0.00501	28.18203	-0.00050
Mean	-0.00022	0.00438	-0.00084	5.10507	0.29870	0.00020	0.00233	28.18293	-0.00061
%RSD	251.75523	38.76227	53.05754	0.05385	0.10884	10.29310	163.27484	0.00454	26.13731

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00040	-0.00080	-0.00094	2.30603	21.17425	2.02594	4.80727	0.07539	-0.00042
#2	-0.00101	-0.00123	-0.00129	2.30676	21.15270	2.02174	4.79470	0.07530	-0.00133
Mean	-0.00071	-0.00101	-0.00111	2.30640	21.16347	2.02384	4.80099	0.07534	-0.00087
%RSD	61.99198	29.88291	22.04709	0.02226	0.07199	0.14670	0.18512	0.08637	72.77138

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	426.34039	-0.00150	-0.57618	0.00130	-0.00036	1.83501	-0.00281	-0.00123	-0.00054
#2	425.82418	-0.00144	-0.73300	0.00132	-0.00094	1.84454	-0.00428	-0.00239	0.00159
Mean	426.08228	-0.00147	-0.65459	0.00131	-0.00065	1.83978	-0.00354	-0.00181	0.00052
%RSD	0.08567	3.26357	16.94112	1.07357	63.33913	0.36640	29.39471	45.00702	286.95204

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	1.99238	-0.00694	12.33488	-0.00307	-0.00271	0.00432	-0.02628	-0.00030	0.00178
#2	1.98937	-0.00121	12.33739	-0.00344	-0.00275	0.00130	-0.04688	-0.00116	0.00145
Mean	1.99087	-0.00408	12.33614	-0.00326	-0.00273	0.00281	-0.03658	-0.00073	0.00161
%RSD	0.10698	99.45211	0.01437	8.04319	1.02962	75.81310	39.81182	83.20324	14.72925

	Zr ppm	Pb calc	Se calc
#1	-0.00058	0.00019	-0.00077
#2	-0.00070	-0.00019	0.00027
Mean	-0.00064	0.00000	-0.00025
%RSD	13.40291	38411.36179	290.19384

Method : Paragon File : 111118A
SampleId1 : 1111170-1 SampleId2 :
Analysis commenced : 11/18/2011 19:38:30
Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:50
[SAMPLE]
Position : TUBE48

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00050	0.00848	-0.00179	0.05779	0.02545	0.00027	0.00154	16.14260	-0.00110
#2	-0.00050	0.00578	-0.00632	0.05657	0.02541	0.00026	-0.00140	16.05150	-0.00116
Mean	-0.00050	0.00713	-0.00405	0.05718	0.02543	0.00027	0.00007	16.09705	-0.00113
%RSD	0.33074	26.78132	78.98162	1.50965	0.11585	2.16363	2973.31597	0.40017	4.03285

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00071	-0.00111	-0.00157	0.18367	12.02878	-0.00133	7.54341	0.10236	-0.00083
#2	-0.00105	-0.00133	-0.00112	0.18439	11.99202	-0.00139	7.52723	0.10181	-0.00010
Mean	-0.00088	-0.00122	-0.00134	0.18403	12.01040	-0.00136	7.53532	0.10208	-0.00047
%RSD	27.60115	12.82269	23.86562	0.27456	0.21643	3.10156	0.15190	0.38261	111.87438

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	3.75440	-0.00066	0.02139	-0.00319	0.00099	12.68425	-0.00526	-0.00011	-0.00250
#2	3.73569	-0.00049	0.03459	-0.00029	0.00112	12.62971	-0.00268	-0.00478	0.00014
Mean	3.74505	-0.00057	0.02799	-0.00174	0.00105	12.65698	-0.00397	-0.00244	-0.00118
%RSD	0.35338	21.00334	33.33557	118.09920	8.53782	0.30466	46.00533	135.01210	157.88884

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
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	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	5.87676	-0.00203	0.04774	-0.00268	-0.00285	0.00103	-0.03788	-0.00051	0.02128
#2	5.85204	-0.00408	0.04746	-0.00477	-0.00286	-0.00397	-0.03582	-0.00075	0.02027
Mean	5.86440	-0.00305	0.04760	-0.00373	-0.00285	-0.00147	-0.03685	-0.00063	0.02077
%RSD	0.29807	47.43263	0.41246	39.61006	0.24620	240.11494	3.95085	27.53194	3.43285

	Zr ppm	Pb calc	Se calc
#1	-0.00155	-0.00040	-0.00171
#2	-0.00132	0.00065	-0.00150
Mean	-0.00143	0.00012	-0.00160
%RSD	11.37045	597.03666	9.15426

Method : Paragon File : 111118A
SampleId1 : 1111171-1 SampleId2 :
Analysis commenced : 11/18/2011 19:40:21
Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:50
[SAMPLE]
Position : TUBE49

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00086	0.10728	-0.00632	0.05733	0.04682	0.00024	-0.00452	44.42897	-0.00053
#2	-0.00065	0.11030	-0.00211	0.05672	0.04695	0.00022	-0.00417	44.38446	-0.00077
Mean	-0.00076	0.10879	-0.00421	0.05703	0.04688	0.00023	-0.00434	44.40672	-0.00065
%RSD	19.99562	1.95803	70.71565	0.75685	0.18854	5.97353	5.59405	0.07087	25.90900

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00062	-0.00092	-0.00002	0.15212	2.38459	-0.00085	18.46764	0.03243	-0.00042
#2	-0.00089	-0.00141	-0.00020	0.15307	2.38884	-0.00087	18.52377	0.03243	0.00080
Mean	-0.00076	-0.00117	-0.00011	0.15259	2.38672	-0.00086	18.49571	0.03243	0.00019
%RSD	25.67623	30.20583	114.81669	0.44138	0.12609	1.73824	0.21460	0.00000	458.85656

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	55.04524	-0.00106	0.06599	-0.00215	0.00221	34.73662	-0.00452	-0.00781	-0.00328
#2	55.21191	-0.00103	0.05666	0.00040	-0.00015	34.81507	-0.00561	-0.00327	0.00064
Mean	55.12858	-0.00105	0.06133	-0.00088	0.00103	34.77585	-0.00506	-0.00554	-0.00132
%RSD	0.21378	2.29333	10.75785	205.19357	161.57729	0.15951	15.17500	57.91221	210.44921

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	6.50976	-0.00203	0.09880	-0.01615	0.00074	-0.00040	-0.04129	0.00030	0.01657
#2	6.53427	-0.00244	0.09916	-0.01811	0.00038	0.00360	-0.04885	-0.00031	0.01691
Mean	6.52201	-0.00224	0.09898	-0.01713	0.00056	0.00160	-0.04507	0.00000	0.01674
%RSD	0.26571	12.92938	0.25649	8.08595	45.21796	176.79369	11.84912	21162.24705	1.41998

	Zr ppm	Pb calc	Se calc
#1	-0.00155	-0.00040	-0.00171
#2	-0.00132	0.00065	-0.00150
Mean	-0.00143	0.00012	-0.00160
%RSD	11.37045	597.03666	9.15426

#1	-0.00071	0.00075	-0.00478	UNDGREEN
#2	-0.00075	0.00003	-0.00066	
Mean	-0.00073	0.00039	-0.00272	
%RSD	3.64679	129.22323	107.12087	

Method : Paragon File : 111118A Printed : 11/21/2011 12:55:50
 SampleId1 : 1111173-1 SampleId2 : [SAMPLE]
 Analysis commenced : 11/18/2011 19:42:13
 Dilution ratio : 1.00000 to 1.00000 Tray : Position : TUBE50

Final concentrations

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00064	0.01531	-0.00084	0.01102	0.04749	0.00021	-0.00401	37.55356	-0.00097
#2	-0.00076	0.01233	-0.00706	0.01163	0.04728	0.00013	0.00033	37.50859	-0.00062
Mean	-0.00070	0.01382	-0.00395	0.01133	0.04738	0.00017	-0.00184	37.53107	-0.00080
%RSD	12.41511	15.24945	111.26134	3.80927	0.31092	31.58029	166.81933	0.08472	30.88091

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00123	-0.00135	-0.00128	-0.01292	1.76674	0.00311	9.47857	-0.00049	-0.00042
#2	-0.00068	-0.00127	-0.00166	-0.01232	1.75423	0.00310	9.44571	-0.00058	-0.00018
Mean	-0.00095	-0.00131	-0.00147	-0.01262	1.76049	0.00310	9.46214	-0.00053	-0.00030
%RSD	40.75586	4.35816	18.40825	3.33138	0.50234	0.24066	0.24559	12.16237	57.51192

	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	17.14794	-0.00086	-0.02274	-0.00391	-0.00040	8.75160	-0.00194	-0.00338	0.00078
#2	16.99280	-0.00018	-0.02319	-0.00178	0.00000	8.79316	-0.00145	0.00913	0.00052
Mean	17.07037	-0.00052	-0.02297	-0.00284	-0.00020	8.77238	-0.00170	0.00287	0.00065
%RSD	0.64266	92.23222	1.40064	53.06871	143.30956	0.33501	20.45284	308.00708	27.75905

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	11.14099	-0.00162	0.13336	-0.00587	-0.00329	0.00092	-0.05697	-0.00083	0.00111
#2	11.07505	-0.00613	0.13258	-0.00718	-0.00297	-0.00247	-0.03157	0.00007	0.00145
Mean	11.10802	-0.00387	0.13297	-0.00653	-0.00313	-0.00078	-0.04427	-0.00038	0.00128
%RSD	0.41979	82.28943	0.41297	14.24960	7.19003	308.28566	40.57139	166.70263	18.60459

	Zr	Pb	Se
	ppm	calc	calc
#1	-0.00237	-0.00157	-0.00061
#2	-0.00218	-0.00059	0.00339
Mean	-0.00228	-0.00108	0.00139
%RSD	5.85152	64.24014	203.09744

Method : Paragon File : 111118A Printed : 11/21/2011 12:55:50
 SampleId1 : CCV SampleId2 : [CV]
 Analysis commenced : 11/18/2011 19:44:55

Dilution ratio : 1.00000 to 1.00000 Tray :

Position : STD6

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	0.19873	52.90390	0.50918	1.01672	1.03318	0.47756	0.53876	47.71474	0.49616
#2	0.19827	52.78439	0.51130	1.01748	1.02955	0.47736	0.53771	47.83868	0.49988
Mean	0.19850	52.84415	0.51024	1.01710	1.03137	0.47746	0.53823	47.77671	0.49802
%RSD	0.16373	0.15992	0.29407	0.05324	0.24863	0.03002	0.13799	0.18344	0.52830

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.48109	0.96421	1.04718	19.78739	49.34904	0.52585	50.43833	0.96665	0.97951
#2	0.48040	0.96724	1.04455	19.79093	49.18789	0.52361	50.41296	0.96805	0.98124
Mean	0.48074	0.96572	1.04586	19.78916	49.26846	0.52473	50.42565	0.96735	0.98037
%RSD	0.10220	0.22207	0.17805	0.01263	0.23128	0.30143	0.03558	0.10220	0.12477

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	49.24196	0.98016	5.06047	0.99039	0.99597	5.24345	0.50269	1.05023	1.03822
#2	49.11716	0.98040	5.06913	0.99177	0.99040	5.26894	0.50119	1.04806	1.03882
Mean	49.17956	0.98028	5.06480	0.99108	0.99319	5.25620	0.50194	1.04914	1.03852
%RSD	0.17944	0.01721	0.12089	0.09808	0.39620	0.34302	0.21183	0.14637	0.04109

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	5.02360	1.05401	0.50676	0.31049	0.48661	0.52925	4.98947	0.48410	0.93848
#2	5.02540	1.04907	0.50562	0.30708	0.48584	0.52574	4.97915	0.48094	0.94865
Mean	5.02450	1.05154	0.50619	0.30878	0.48622	0.52750	4.98431	0.48252	0.94357
%RSD	0.02540	0.33215	0.15991	0.77931	0.11292	0.47053	0.14642	0.46328	0.76217

	Zr ppm	Pb calc	Se calc
#1	0.98716	0.99411	1.04222
#2	0.98604	0.99086	1.04190
Mean	0.98660	0.99248	1.04206
%RSD	0.08033	0.23184	0.02176

Method : Paragon File : 111118A
 SampleId1 : CCB SampleId2 :
 Analysis commenced : 11/18/2011 19:46:53
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:51
[CB]

Position : STD2

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00030	0.03253	0.00305	-0.00423	-0.00075	0.00030	-0.00210	-0.04821	-0.00043
#2	-0.00051	0.02619	0.00169	-0.00530	-0.00083	0.00030	-0.00210	-0.05425	-0.00063

Mean	-0.00041	0.02936	0.00237	-0.00477	-0.00079	0.00030	-0.00210	-0.05123	-0.00053
%RSD	36.61239	15.26155	40.84892	15.84041	7.42943	0.74290	0.03217	8.34493	27.01912

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00123	-0.00083	-0.00130	0.00421	-0.24218	-0.00182	-0.03140	-0.00030	-0.00034
#2	-0.00040	-0.00067	-0.00130	0.00183	-0.24817	-0.00185	-0.03766	-0.00040	-0.00173
Mean	-0.00081	-0.00075	-0.00130	0.00302	-0.24517	-0.00183	-0.03453	-0.00035	-0.00104
%RSD	71.62106	14.63363	0.14508	55.72857	1.72677	1.08772	12.83166	18.54036	94.73781

	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.16039	-0.00299	-0.00545	-0.00169	0.00164	-0.03512	-0.00648	0.00496	0.00240
#2	-0.16481	-0.00157	-0.01137	-0.00361	0.00017	-0.04147	-0.00319	-0.00286	-0.00152
Mean	-0.16260	-0.00228	-0.00841	-0.00265	0.00091	-0.03829	-0.00483	0.00105	0.00044
%RSD	1.92171	44.10653	49.73820	51.04393	114.41815	11.71577	48.18133	526.15087	627.41200

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.01851	0.00125	-0.00162	-0.00309	-0.00285	0.00024	-0.03364	-0.00103	0.00010
#2	-0.01877	-0.00367	-0.00168	0.00273	-0.00282	0.00364	-0.03021	-0.00124	0.00010
Mean	-0.01864	-0.00121	-0.00165	-0.00018	-0.00283	0.00194	-0.03192	-0.00114	0.00010
%RSD	0.99912	287.27450	2.47302	2283.96733	0.74379	124.11025	7.60681	12.76523	0.00000

	Zr	Pb	Se
	ppm	calc	calc
#1	0.00055	0.00053	0.00325
#2	0.00027	-0.00109	-0.00196
Mean	0.00041	-0.00028	0.00064
%RSD	48.36987	409.76829	572.43510

Method : Paragon File : 111118A
 SampleId1 : 1111174-1 SampleId2 :
 Analysis commenced : 11/18/2011 19:48:49
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:51
 [SAMPLE]

Position : TUBE51

Final concentrations

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00102	0.03814	-0.00074	0.04078	0.04136	0.00035	-0.00123	78.16596	-0.00076
#2	-0.00045	0.04144	-0.00432	0.04001	0.04140	0.00034	-0.00002	78.24508	-0.00074
Mean	-0.00073	0.03979	-0.00253	0.04040	0.04138	0.00035	-0.00063	78.20552	-0.00075
%RSD	54.80166	5.87087	100.18815	1.33551	0.07119	1.55839	137.48620	0.07154	2.31300

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00076	-0.00126	-0.00111	-0.01256	0.37901	0.00069	25.72238	-0.00067	-0.00141
#2	-0.00096	-0.00129	-0.00084	-0.01256	0.38100	0.00066	25.74193	-0.00076	-0.00075
Mean	-0.00086	-0.00128	-0.00097	-0.01256	0.38000	0.00067	25.73215	-0.00072	-0.00108

%RSD	17.00601	1.84070	19.64453	0.00000	0.37168	2.58578	0.05373	9.04934	42.89224
	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	3.40280	-0.00299	0.00160	-0.00156	0.00199	8.66848	-0.00563	0.00369	0.00155
#2	3.40440	-0.00160	-0.00750	-0.00101	-0.00102	8.61733	-0.00403	0.00609	-0.00212
Mean	3.40360	-0.00230	-0.00295	-0.00129	0.00049	8.64291	-0.00483	0.00489	-0.00029
%RSD	0.03319	42.73900	218.20657	30.15780	435.27256	0.41846	23.40388	34.70312	907.71162
	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	5.89984	-0.00449	0.09769	-0.02014	-0.00315	-0.00128	-0.04667	-0.00046	0.00716
#2	5.90914	-0.00285	0.09775	-0.01990	-0.00309	0.00012	-0.04324	0.00035	0.00514
Mean	5.90449	-0.00367	0.09772	-0.02002	-0.00312	-0.00058	-0.04496	-0.00005	0.00615
%RSD	0.11138	31.59048	0.04190	0.84238	1.35243	171.70869	5.39897	1061.16576	23.18354
	Zr	Pb	Se						
	ppm	calc	calc						
#1	-0.00004	0.00081	0.00226						
#2	0.00047	-0.00102	0.00062						
Mean	0.00022	-0.00010	0.00144						
%RSD	167.86248	1246.52165	80.83350						

Method : Paragon File : 111118A
SampleId1 : 1111180-1 SampleId2 :
Analysis commenced : 11/18/2011 19:50:45
Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:51
[SAMPLE]
Position : TUBE52

Final concentrations

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00051	0.01921	0.00421	0.06855	0.12219	0.00041	-0.00071	152.43201	-0.00106
#2	-0.00092	0.01812	-0.00158	0.06893	0.12282	0.00041	-0.00782	152.19643	-0.00072
Mean	-0.00072	0.01867	0.00132	0.06874	0.12251	0.00041	-0.00426	152.31422	-0.00089
%RSD	41.04489	4.12774	311.02229	0.39245	0.36110	0.50610	117.98623	0.10937	27.41467
	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00078	-0.00095	0.00006	0.38462	2.31224	0.00315	59.01447	0.37586	-0.00108
#2	-0.00009	-0.00142	0.00034	0.38509	2.30648	0.00315	58.99778	0.37623	-0.00051
Mean	-0.00043	-0.00119	0.00020	0.38485	2.30936	0.00315	59.00613	0.37605	-0.00079
%RSD	112.15828	27.85185	96.92040	0.08766	0.17628	0.07897	0.02000	0.06952	51.08886
	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	19.56821	-0.00005	0.01298	-0.00001	-0.00074	46.56425	-0.00159	0.00757	-0.00076
#2	19.53262	0.00046	0.00888	-0.00388	-0.00082	46.71939	-0.00537	0.00024	0.00163
Mean	19.55042	0.00021	0.01093	-0.00194	-0.00078	46.64182	-0.00348	0.00390	0.00043
%RSD	0.12870	171.99438	26.49650	140.59775	7.28806	0.23519	76.96223	132.60673	388.75658

ted: 11/21/2011 12:56:08 User: MIKE LUNDGREEN

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	8.27424	0.00453	0.41008	-0.02502	-0.00333	0.00026	-0.03253	-0.00043	0.02060
#2	8.26120	0.00002	0.41144	-0.03470	-0.00357	-0.00224	-0.03871	-0.00084	0.01926
Mean	8.26772	0.00227	0.41076	-0.02986	-0.00345	-0.00099	-0.03562	-0.00063	0.01993
%RSD	0.11148	140.18997	0.23480	22.91917	4.89480	178.85700	12.26752	45.75843	4.77007

	Zr ppm	Pb calc	Se calc
#1	0.00000	-0.00049	0.00201
#2	0.00060	-0.00184	0.00117
Mean	0.00030	-0.00117	0.00159
%RSD	140.37043	81.35386	37.69632

Method : Paragon

File : 111118A

Printed : 11/21/2011 12:55:51

SampleId1 : 1111181-1

SampleId2 :

[SAMPLE]

Analysis commenced : 11/18/2011 19:52:38

Dilution ratio : 1.00000 to 1.00000 Tray :

Position : TUBE53

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00076	0.02862	-0.00042	0.00248	0.05324	0.00044	-0.00104	56.95429	-0.00113
#2	-0.00097	0.02924	-0.00358	0.00179	0.05328	0.00043	-0.00486	57.03615	-0.00114
Mean	-0.00086	0.02893	-0.00200	0.00214	0.05326	0.00044	-0.00295	56.99522	-0.00114
%RSD	17.36574	1.50216	111.66981	22.72417	0.05533	1.67850	91.41645	0.10156	1.03170

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00095	-0.00158	0.00416	-0.00983	0.06747	0.00057	25.54734	0.00015	-0.00108
#2	-0.00074	-0.00195	0.00334	-0.01101	0.06922	0.00056	25.64554	-0.00003	-0.00206
Mean	-0.00084	-0.00176	0.00375	-0.01042	0.06835	0.00056	25.59644	0.00006	-0.00157
%RSD	17.36363	15.20070	15.50560	8.06956	1.80742	1.32234	0.27128	206.11378	44.22049

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	41.79968	-0.00225	0.01593	-0.00002	-0.00110	26.75544	-0.00476	0.00824	0.00129
#2	42.03301	-0.00184	0.01480	-0.00198	0.00095	26.87557	-0.00562	0.00307	0.00138
Mean	41.91635	-0.00205	0.01536	-0.00100	-0.00008	26.81550	-0.00519	0.00565	0.00133
%RSD	0.39362	14.06397	5.23514	138.06732	1909.20683	0.31679	11.72961	64.66395	4.49993

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	8.43864	0.00452	0.10687	-0.01584	-0.00291	0.00523	-0.04187	-0.00104	0.00750
#2	8.48980	-0.00039	0.10734	-0.01756	-0.00307	-0.00237	-0.03638	-0.00083	0.00783
Mean	8.46422	0.00207	0.10710	-0.01670	-0.00299	0.00143	-0.03912	-0.00093	0.00766
%RSD	0.42745	168.12954	0.31357	7.29651	3.76239	376.23405	9.92798	15.47387	3.10136

	Zr	Pb	SeUNDGREEN
	ppm	calc	calc
#1	-0.00101	-0.00074	0.00360
#2	-0.00107	-0.00002	0.00194
Mean	-0.00104	-0.00038	0.00277
%RSD	3.92535	132.26020	42.46733

Method : Paragon File : 111118A
 SampleId1 : 1111182-1 SampleId2 :
 Analysis commenced : 11/18/2011 19:54:39
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:51
 [SAMPLE]
 Position : TUBE54

Final concentrations

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00076	0.03841	-0.00242	0.00889	0.03861	0.00055	-0.00763	69.61706	-0.00073
#2	-0.00087	0.03891	-0.00632	0.00797	0.03857	0.00047	-0.00191	70.03799	-0.00103
Mean	-0.00082	0.03866	-0.00437	0.00843	0.03859	0.00051	-0.00477	69.82752	-0.00088
%RSD	9.10490	0.90927	63.04731	7.67874	0.07634	10.97896	84.84327	0.42625	23.93955

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00124	-0.00161	0.00488	-0.01030	1.06718	0.00305	24.10680	0.00245	-0.00100
#2	-0.00090	-0.00073	0.00470	-0.00959	1.06968	0.00304	24.12361	0.00255	-0.00214
Mean	-0.00107	-0.00117	0.00479	-0.00994	1.06843	0.00304	24.11521	0.00250	-0.00157
%RSD	22.75283	53.03251	2.69754	5.07334	0.16539	0.40899	0.04928	2.60103	51.59058

	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	23.82392	-0.00167	0.03800	-0.00600	-0.00072	14.64596	-0.00060	-0.00047	0.00274
#2	23.70693	-0.00188	0.04506	0.00158	0.00009	14.66846	-0.00123	-0.00084	-0.00135
Mean	23.76543	-0.00177	0.04153	-0.00221	-0.00031	14.65721	-0.00091	-0.00065	0.00069
%RSD	0.34808	8.10694	12.01007	242.18316	183.20224	0.10852	48.82539	40.77962	416.18860

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	7.65367	-0.00080	0.18496	-0.01732	-0.00311	0.00133	-0.03706	-0.00071	0.00447
#2	7.65763	0.00084	0.18436	-0.01600	-0.00310	0.00093	-0.03569	-0.00030	0.00447
Mean	7.65565	0.00002	0.18466	-0.01666	-0.00310	0.00113	-0.03638	-0.00050	0.00447
%RSD	0.03653	6017.96528	0.23104	5.59194	0.22649	24.98136	2.66800	57.41285	0.00000

	Zr	Pb	Se
	ppm	calc	calc
#1	-0.00073	-0.00248	0.00167
#2	-0.00082	0.00059	-0.00118
Mean	-0.00077	-0.00095	0.00025
%RSD	7.76657	229.12536	822.05413

Method : Paragon File : 111118A

Printed : 11/21/2011 12:55:52

SampleId1 : 1111183-1 SampleId2 :
 Analysis commenced : 11/18/2011 19:56:30
 Dilution ratio : 1.00000 to 1.00000 Tray :

[SAMPLE]
 Position : TUBE55

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00102	0.02280	0.00232	0.08763	0.06362	0.00057	-0.00401	98.75867	-0.00082
#2	-0.00019	0.02465	-0.00432	0.08763	0.06362	0.00052	-0.00106	99.20993	-0.00028
Mean	-0.00061	0.02373	-0.00100	0.08763	0.06362	0.00054	-0.00253	98.98430	-0.00055
%RSD	96.09707	5.51386	469.14280	0.00000	0.00000	7.05847	82.41308	0.32236	69.68969

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00127	-0.00157	-0.00083	0.03894	0.78134	0.00302	45.39307	0.00061	0.00097
#2	-0.00072	-0.00095	-0.00103	0.04001	0.77859	0.00302	45.41745	0.00080	-0.00263
Mean	-0.00100	-0.00126	-0.00093	0.03947	0.77997	0.00302	45.40526	0.00071	-0.00083
%RSD	38.94782	34.69944	14.83029	1.91786	0.24912	0.08237	0.03797	18.39964	305.37427

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	10.55712	-0.00137	0.01070	-0.00373	0.00182	10.62338	-0.00266	0.00595	0.00156
#2	10.50444	-0.00160	-0.00409	-0.00007	-0.00081	10.61377	-0.00172	0.00508	0.00377
Mean	10.53078	-0.00149	0.00331	-0.00190	0.00051	10.61857	-0.00219	0.00552	0.00266
%RSD	0.35373	11.29220	316.14500	136.15787	368.50936	0.06397	30.40080	11.15221	58.78696

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	8.72365	0.00084	0.17518	-0.03767	-0.00369	0.00264	-0.05152	0.00057	0.11410
#2	8.72463	0.00002	0.17497	-0.03476	-0.00347	-0.00185	-0.03504	0.00081	0.11814
Mean	8.72414	0.00043	0.17508	-0.03621	-0.00358	0.00040	-0.04328	0.00069	0.11612
%RSD	0.00798	134.94275	0.08434	5.67762	4.51504	803.36358	26.92046	25.10510	2.45868

	Zr ppm	Pb calc	Se calc
#1	0.00005	-0.00003	0.00302
#2	0.00022	-0.00057	0.00421
Mean	0.00014	-0.00030	0.00361
%RSD	86.50080	128.81299	23.23670

Method : Paragon File : 111118A
 SampleId1 : 1111207-1 SampleId2 :
 Analysis commenced : 11/18/2011 19:58:22
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:52
 [SAMPLE]
 Position : TUBE56

Final concentrations

Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
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#1	0.00001	0.02125	-0.00337	0.03193	0.05211	0.00042	0.00215	65.45597	-0.00115
#2	0.00001	0.01655	-0.00569	0.03200	0.05178	0.00038	0.00267	65.36103	-0.00079
Mean	0.00001	0.01890	-0.00453	0.03196	0.05195	0.00040	0.00241	65.40850	-0.00097
%RSD	11.86281	17.58520	36.17958	0.16877	0.45379	5.46355	15.21823	0.10265	26.35120

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00108	-0.00030	0.02860	-0.01042	1.37863	-0.00018	23.25580	-0.00067	-0.00141
#2	-0.00026	-0.00030	0.02796	-0.01113	1.37938	-0.00018	23.16318	-0.00076	-0.00165
Mean	-0.00067	-0.00030	0.02828	-0.01078	1.37900	-0.00018	23.20949	-0.00072	-0.00153
%RSD	86.80724	0.43612	1.58415	4.68145	0.03846	0.00000	0.28216	9.04934	11.35089

	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	4.80511	-0.00164	0.02026	-0.00105	0.00060	7.18932	0.00024	0.00005	-0.00041
#2	4.76826	-0.00106	0.01798	0.00000	0.00017	7.13505	-0.00221	-0.00588	0.00061
Mean	4.78668	-0.00135	0.01912	-0.00053	0.00038	7.16218	-0.00098	-0.00292	0.00010
%RSD	0.54435	30.17780	8.41462	141.50589	78.48776	0.53584	176.16881	143.76318	737.04637

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	7.82823	-0.00080	0.15044	-0.01451	-0.00311	-0.00167	-0.02539	-0.00030	0.00750
#2	7.79104	-0.00326	0.14986	-0.01558	-0.00296	-0.00007	-0.02883	0.00015	0.00750
Mean	7.80964	-0.00203	0.15015	-0.01504	-0.00303	-0.00087	-0.02711	-0.00007	0.00750
%RSD	0.33673	85.66028	0.27301	5.00874	3.47523	130.43785	8.95246	426.24358	0.00000

	Zr	Pb	Se
	ppm	calc	calc
#1	-0.00082	0.00005	-0.00026
#2	-0.00078	0.00011	-0.00155
Mean	-0.00080	0.00008	-0.00091
%RSD	4.29684	58.25953	100.94385

Method : Paragon File : 111118A
 SampleId1 : 1111209-1 SampleId2 :
 Analysis commenced : 11/18/2011 20:00:16
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:52
 [SAMPLE]
 Position : TUBE57

Final concentrations

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00091	0.02372	-0.00179	0.19249	0.08133	0.00041	-0.00245	85.51046	-0.00131
#2	-0.00025	0.02152	-0.00569	0.19372	0.08137	0.00038	-0.00261	85.49769	-0.00079
Mean	-0.00058	0.02262	-0.00374	0.19310	0.08135	0.00040	-0.00253	85.50407	-0.00105
%RSD	80.67277	6.89520	73.70474	0.44726	0.03623	4.90073	4.66548	0.01056	35.34290

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00097	-0.00141	-0.00056	0.00504	2.75143	0.00235	40.87148	0.03647	-0.00051

#2	-0.00036	-0.00092	-0.00012	0.00563	2.73991	0.00236	40.90956	0.03675	-0.00075
Mean	-0.00067	-0.00117	-0.00034	0.00534	2.74567	0.00236	40.89052	0.03661	-0.00063
%RSD	65.81088	29.76729	91.89889	7.87843	0.29672	0.31688	0.06585	0.53289	27.59082

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	17.95567	-0.00130	0.03505	-0.00424	-0.00092	33.17528	-0.00415	-0.00174	0.00002
#2	17.89771	-0.00103	0.03891	-0.00116	-0.00094	33.06104	-0.00036	0.00357	-0.00067
Mean	17.92269	-0.00116	0.03698	-0.00270	-0.00093	33.11816	-0.00225	0.00092	-0.00032
%RSD	0.22861	16.47630	7.39649	80.50124	1.40427	0.24392	118.91534	410.26623	148.59589

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	6.82453	0.00289	0.19376	-0.02200	-0.00296	-0.00307	-0.05218	-0.00058	0.02229
#2	6.82067	-0.00080	0.19337	-0.02707	-0.00293	0.00084	-0.03227	-0.00026	0.02464
Mean	6.82260	0.00104	0.19357	-0.02453	-0.00294	-0.00111	-0.04222	-0.00042	0.02346
%RSD	0.04000	249.90683	0.13990	14.60821	0.71617	248.90561	33.34096	55.21945	7.09202

	Zr ppm	Pb calc	Se calc
#1	-0.00075	-0.00203	-0.00057
#2	0.00034	-0.00102	0.00075
Mean	-0.00021	-0.00152	0.00009
%RSD	370.34682	47.03444	1048.58995

Method : Paragon File : 111118A
 SampleId1 : 1111210-1 SampleId2 :
 Analysis commenced : 11/18/2011 20:02:09
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:52
 [SAMPLE]

Position : TUBE58

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00071	0.01467	-0.00263	0.04741	0.07016	0.00036	-0.00262	99.45900	-0.00083
#2	-0.00071	0.01196	-0.00474	0.04719	0.07058	0.00030	0.00379	99.38898	-0.00100
Mean	-0.00071	0.01331	-0.00369	0.04730	0.07037	0.00033	0.00059	99.42399	-0.00091
%RSD	0.09669	14.41100	40.40941	0.34218	0.41884	13.62632	773.00774	0.04980	13.66670

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00078	-0.00110	-0.00129	0.02145	7.42980	0.00282	47.81087	0.00126	0.00007
#2	-0.00147	-0.00129	-0.00120	0.02098	7.47088	0.00286	47.96290	0.00144	0.00031
Mean	-0.00113	-0.00120	-0.00124	0.02121	7.45034	0.00284	47.88688	0.00135	0.00019
%RSD	43.12970	11.16749	5.10677	1.58578	0.38989	0.87736	0.22449	9.62968	91.77189

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	31.19407	-0.00072	0.01138	-0.00204	-0.00033	42.39288	-0.00219	-0.00376	0.00351
#2	31.31334	-0.00099	0.00592	-0.00059	-0.00011	42.68895	-0.00390	0.00634	0.00360

Mean	31.25370	-0.00086	0.00865	-0.00132	-0.00022	42.54091	-0.00304	0.00129	0.00355
%RSD	0.26985	22.32978	44.61612	77.99755	68.25979	0.49213	39.75881	553.45161	1.69216

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	6.40850	0.00166	0.19138	-0.03533	-0.00345	-0.00487	-0.04670	-0.00009	0.09089
#2	6.42227	-0.00244	0.19259	-0.03583	-0.00353	-0.00686	-0.04532	-0.00083	0.09021
Mean	6.41539	-0.00039	0.19198	-0.03558	-0.00349	-0.00587	-0.04601	-0.00046	0.09055
%RSD	0.15181	742.82509	0.44453	0.98967	1.61299	24.10713	2.11067	113.93436	0.52536

	Zr	Pb	Se
	ppm	calc	calc
#1	0.00060	-0.00090	0.00109
#2	0.00060	-0.00027	0.00451
Mean	0.00060	-0.00059	0.00280
%RSD	0.33920	75.54550	86.30548

Method : Paragon File : 111118A
 SampleId1 : 1111232-1 SampleId2 :
 Analysis commenced : 11/18/2011 20:04:01
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:52

[SAMPLE]

Position : TUBE59

Final concentrations

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	0.00028	0.01513	-0.00727	0.31833	-0.00050	0.00020	0.00433	-0.01107	-0.00056
#2	-0.00107	0.01770	-0.00232	0.32009	-0.00054	0.00018	-0.00157	-0.02258	-0.00085
Mean	-0.00040	0.01641	-0.00479	0.31921	-0.00052	0.00019	0.00138	-0.01682	-0.00071
%RSD	241.88166	11.07108	73.04592	0.38913	5.64096	6.10473	302.57699	48.40200	28.28509

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00033	-0.00073	0.00124	0.10926	0.00733	-0.00007	-0.03319	-0.00076	-0.00263
#2	-0.00150	-0.00073	0.00089	0.10890	-0.00240	-0.00008	-0.04169	-0.00076	-0.00223
Mean	-0.00092	-0.00073	0.00106	0.10908	0.00246	-0.00008	-0.03744	-0.00076	-0.00243
%RSD	90.07992	0.35363	23.78581	0.23146	279.39379	3.27670	16.06117	0.00000	11.90868

	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	200.22587	-0.00113	-0.00795	0.00182	-0.00120	8.88588	-0.00295	0.00356	0.00396
#2	200.15401	-0.00086	-0.01068	-0.00055	-0.00090	8.93065	-0.00148	-0.00212	-0.00064
Mean	200.18994	-0.00099	-0.00932	0.00063	-0.00105	8.90826	-0.00221	0.00072	0.00166
%RSD	0.02538	19.28479	20.71431	265.47128	20.68811	0.35532	47.09217	557.39917	196.44208

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	7.16903	0.00043	-0.00170	0.00319	-0.00259	0.00688	-0.03097	-0.00073	0.00884
#2	7.17708	0.00125	-0.00179	0.00310	-0.00241	0.00268	-0.03783	-0.00097	0.01018
Mean	7.17306	0.00084	-0.00174	0.00315	-0.00250	0.00478	-0.03440	-0.00085	0.00951

%RSD	0.07942	69.12751	3.27875	2.03090	5.05668	62.18455	14.11180	20.44595	9.99462
	Zr	Pb	Se						
	ppm	calc	calc						
#1	-0.00182	-0.00020	0.00382						
#2	-0.00183	-0.00078	-0.00114						
Mean	-0.00182	-0.00049	0.00134						
%RSD	0.34566	84.35481	260.89404						

Method : Paragon File : 111118A
SampleId1 : 1111233-1 SampleId2 :
Analysis commenced : 11/18/2011 20:05:50
Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:52
[SAMPLE]

Position : TUBE60

Final concentrations

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00159	0.01135	-0.00463	0.20898	0.04353	0.00018	-0.00280	82.27347	-0.00054
#2	-0.00056	0.01134	0.00179	0.20822	0.04340	0.00018	-0.00192	82.20924	-0.00086
Mean	-0.00107	0.01134	-0.00142	0.20860	0.04347	0.00018	-0.00236	82.24135	-0.00070
%RSD	67.84524	0.08212	319.60984	0.25878	0.20335	2.44827	26.18976	0.05523	31.46022

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00089	-0.00182	-0.00183	0.23537	0.51559	-0.00098	28.36248	0.10264	-0.00296
#2	-0.00041	-0.00070	-0.00093	0.23513	0.52133	-0.00099	28.31148	0.10300	-0.00059
Mean	-0.00065	-0.00126	-0.00138	0.23525	0.51846	-0.00099	28.33698	0.10282	-0.00178
%RSD	52.39853	62.83857	45.82885	0.07162	0.78335	0.75606	0.12727	0.25325	94.54801

	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	3.51813	-0.00042	0.02026	-0.00381	0.00190	7.50224	-0.00563	-0.00883	0.00245
#2	3.51225	-0.00032	0.02390	-0.00187	0.00064	7.46392	-0.00220	0.00140	0.00109
Mean	3.51519	-0.00037	0.02208	-0.00284	0.00127	7.48308	-0.00392	-0.00372	0.00177
%RSD	0.11835	19.58169	11.65982	48.24475	69.94010	0.36212	62.08187	194.69468	54.56562

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	6.17133	0.00002	0.12138	-0.02510	-0.00299	0.00064	-0.05096	-0.00099	0.02598
#2	6.17144	-0.00162	0.12102	-0.02373	-0.00293	0.00355	-0.03449	-0.00046	0.02565
Mean	6.17138	-0.00080	0.12120	-0.02441	-0.00296	0.00210	-0.04272	-0.00072	0.02582
%RSD	0.00129	144.80020	0.20957	3.99547	1.42511	98.14030	27.27054	52.05197	0.92081

	Zr	Pb	Se
	ppm	calc	calc
#1	-0.00038	0.00000	-0.00131
#2	0.00001	-0.00019	0.00119
Mean	-0.00019	-0.00010	-0.00006
%RSD	146.17260	140.50140	2985.13762

ted: 11/21/2011 12:56:08 User: MIKE LUNDGREEN
 Method : Paragon File : 111118A
 SampleId1 : CCV SampleId2 :
 Analysis commenced : 11/18/2011 20:08:20
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:53
 [CV]
 Position : STD6

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	0.19915	52.53577	0.50822	1.01212	1.02049	0.47960	0.53801	48.43201	0.50334
#2	0.19859	52.81780	0.52064	1.01963	1.02825	0.47902	0.52851	48.24143	0.50192
Mean	0.19887	52.67679	0.51443	1.01588	1.02437	0.47931	0.53326	48.33672	0.50263
%RSD	0.19926	0.37859	1.70641	0.52237	0.53554	0.08579	1.25937	0.27880	0.19986

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.48398	0.97323	1.03484	19.86234	48.68977	0.51804	50.34283	0.97066	0.97852
#2	0.48171	0.97233	1.04083	19.86262	49.01616	0.52179	50.42080	0.97131	0.98107
Mean	0.48285	0.97278	1.03784	19.86248	48.85297	0.51991	50.38181	0.97099	0.97980
%RSD	0.33296	0.06547	0.40785	0.00097	0.47241	0.51025	0.10944	0.04752	0.18429

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	48.79598	0.99737	5.07310	0.99472	0.99362	5.25301	0.49825	1.03389	1.02550
#2	49.03776	0.98470	5.08364	0.99129	0.99374	5.27213	0.50014	1.04536	1.03040
Mean	48.91687	0.99103	5.07837	0.99301	0.99368	5.26257	0.49920	1.03962	1.02795
%RSD	0.34949	0.90452	0.14665	0.24437	0.00890	0.25696	0.26766	0.78060	0.33750

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	5.01211	1.06224	0.50390	0.31380	0.48398	0.53075	4.92682	0.48502	0.96187
#2	5.02607	1.04783	0.50702	0.31442	0.48535	0.53478	4.95984	0.48473	0.95509
Mean	5.01909	1.05504	0.50546	0.31411	0.48467	0.53277	4.94333	0.48487	0.95848
%RSD	0.19664	0.96584	0.43629	0.13922	0.19896	0.53472	0.47230	0.04191	0.50027

	Zr ppm	Pb calc	Se calc
#1	0.98417	0.99399	1.02829
#2	0.98771	0.99293	1.03538
Mean	0.98594	0.99346	1.03184
%RSD	0.25381	0.07540	0.48616

Method : Paragon File : 111118A
 SampleId1 : CCB SampleId2 :
 Analysis commenced : 11/18/2011 20:10:15
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:53
 [CB]
 Position : STD2

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00025	0.03295	0.00463	-0.00423	-0.00083	0.00031	0.00033	-0.04648	-0.00086
#2	-0.00020	0.03410	-0.00063	-0.00530	-0.00083	0.00030	0.00207	-0.04936	-0.00042
Mean	-0.00022	0.03352	0.00200	-0.00477	-0.00083	0.00031	0.00120	-0.04792	-0.00064
%RSD	14.54261	2.42438	186.04209	15.84041	0.00000	0.44162	102.40268	4.24836	48.49833

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00061	-0.00067	-0.00139	0.00302	-0.24792	-0.00191	-0.03274	-0.00030	0.00023
#2	-0.00068	-0.00033	-0.00149	0.00254	-0.25191	-0.00192	-0.03229	-0.00049	-0.00010
Mean	-0.00064	-0.00050	-0.00144	0.00278	-0.24991	-0.00191	-0.03251	-0.00040	0.00007
%RSD	7.55336	48.30950	4.78647	12.09928	1.12934	0.39026	0.97332	32.78287	348.53621

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	-0.16099	-0.00099	-0.00454	-0.00079	0.00112	-0.04147	-0.00207	-0.00097	-0.00331
#2	-0.16265	-0.00032	-0.01341	0.00017	0.00069	-0.03829	-0.00305	-0.00475	-0.00067
Mean	-0.16182	-0.00066	-0.00898	-0.00031	0.00091	-0.03988	-0.00256	-0.00286	-0.00199
%RSD	0.72409	73.14950	69.88093	221.69660	34.13409	5.62489	27.23077	93.42978	94.00578

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	-0.01875	-0.00203	-0.00166	0.00279	-0.00276	0.00094	-0.03501	-0.00079	-0.00057
#2	-0.01902	-0.00080	-0.00169	-0.00037	-0.00281	0.00254	-0.02677	-0.00058	0.00010
Mean	-0.01889	-0.00141	-0.00168	0.00121	-0.00279	0.00174	-0.03089	-0.00069	-0.00024
%RSD	0.99661	61.42070	1.46334	184.40735	1.26177	65.27680	18.85683	21.08547	202.24255

	Zr ppm	Pb calc	Se calc
#1	0.00041	0.00049	-0.00253
#2	0.00051	0.00052	-0.00203
Mean	0.00046	0.00050	-0.00228
%RSD	14.82599	4.26523	15.62225

Method : Paragon File : 111118A
SampleId1 : 1111234-1 SampleId2 :
Analysis commenced : 11/18/2011 20:12:10
Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:53

[SAMPLE]

Position : TUBE61

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00137	0.07912	0.00284	0.05352	0.03561	0.00024	-0.00261	51.41333	-0.00109
#2	-0.00025	0.09141	0.00348	0.05428	0.03574	0.00024	0.00052	51.48422	-0.00047
Mean	-0.00081	0.08526	0.00316	0.05390	0.03568	0.00024	-0.00105	51.44877	-0.00078
%RSD	98.47439	10.19906	14.14070	1.00095	0.24774	0.33888	210.97167	0.09744	56.81883

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
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	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00159	-0.00216	0.00072	0.01860	5.64761	-0.00056	8.15867	0.03510	-0.00116
#2	-0.00029	-0.00098	0.00170	0.01955	5.62020	-0.00053	8.14383	0.03500	-0.00223
Mean	-0.00094	-0.00157	0.00121	0.01907	5.63391	-0.00055	8.15125	0.03505	-0.00169
%RSD	98.39296	52.92456	57.05335	3.52748	0.34396	3.64773	0.12877	0.18555	44.43217

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	15.71302	0.00060	0.56715	-0.00876	0.00407	9.67911	-0.00549	-0.00364	0.00070
#2	15.63383	0.00118	0.56008	0.00185	-0.00162	9.65671	-0.00172	-0.00211	-0.00007
Mean	15.67342	0.00089	0.56362	-0.00345	0.00122	9.66791	-0.00360	-0.00287	0.00032
%RSD	0.35726	45.93923	0.88762	217.15077	328.83862	0.16381	74.04401	37.80993	170.86665

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	5.69753	-0.00080	0.14048	-0.00260	-0.00094	-0.00027	-0.06180	-0.00009	0.00010
#2	5.69277	0.00002	0.14038	-0.00631	-0.00106	-0.00305	-0.03297	0.00102	-0.00091
Mean	5.69515	-0.00039	0.14043	-0.00445	-0.00100	-0.00166	-0.04738	0.00046	-0.00040
%RSD	0.05911	147.49645	0.05253	58.98424	8.42594	118.65167	43.02991	168.72617	176.88495

	Zr ppm	Pb calc	Se calc
#1	-0.00116	-0.00020	-0.00075
#2	-0.00038	-0.00047	-0.00075
Mean	-0.00077	-0.00033	-0.00075
%RSD	71.17626	56.25909	0.03211

Method : Paragon File : 111118A
SampleId1 : 1111235-1 SampleId2 :
Analysis commenced : 11/18/2011 20:14:00
Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:53
[SAMPLE]
Position : TUBE62

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00077	0.02507	-0.00305	0.73636	0.04078	0.00039	-0.00348	23.33653	-0.00099
#2	-0.00045	0.02368	-0.00316	0.74011	0.04099	0.00040	-0.00053	23.32994	-0.00067
Mean	-0.00061	0.02437	-0.00311	0.73823	0.04088	0.00039	-0.00200	23.33323	-0.00083
%RSD	36.18241	4.04868	2.39722	0.35903	0.36032	1.38168	103.99274	0.01995	27.67017

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00041	-0.00139	0.00070	0.24597	2.23915	0.01740	10.90272	0.04687	0.00457
#2	-0.00014	-0.00073	0.00116	0.24609	2.23940	0.01743	10.95725	0.04678	0.00645
Mean	-0.00028	-0.00106	0.00093	0.24603	2.23928	0.01741	10.92999	0.04682	0.00551
%RSD	71.15157	43.93320	34.54279	0.03424	0.00790	0.10004	0.35273	0.13892	24.16190

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
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#1	193.24788	-0.00201	0.01138	0.00086	-0.00124	20.69315	-0.00276	0.00392	-0.00130
#2	193.02546	-0.00123	0.00251	-0.00002	-0.00081	20.78036	-0.00116	-0.00226	-0.00292
Mean	193.13667	-0.00162	0.00695	0.00042	-0.00102	20.73675	-0.00196	0.00083	-0.00211
%RSD	0.08143	34.00024	90.30640	146.97333	29.72286	0.29740	57.84673	527.14949	54.31093

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	4.37721	0.00248	0.15473	-0.00829	-0.00251	0.00155	-0.03655	-0.00107	0.11814
#2	4.38802	0.00575	0.15534	-0.01042	-0.00311	0.00204	-0.03655	-0.00033	0.11948
Mean	4.38262	0.00412	0.15503	-0.00935	-0.00281	0.00180	-0.03655	-0.00070	0.11881
%RSD	0.17448	56.32100	0.27502	16.06965	15.00729	19.68016	0.00016	74.40251	0.80101

	Zr	Pb	Se
	ppm	calc	calc
#1	0.00046	-0.00054	0.00044
#2	0.00052	-0.00055	-0.00270
Mean	0.00049	-0.00054	-0.00113
%RSD	7.90922	0.55511	196.49025

Method : Paragon File : 111118A
SampleId1 : 1111260-1 SampleId2 :
Analysis commenced : 11/18/2011 20:15:49
Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:53
[SAMPLE]

Position : TUBE63

Final concentrations

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00139	0.03067	0.00137	0.26304	0.01737	0.00048	0.00000	53.35830	-0.00078
#2	-0.00066	0.02675	-0.00221	0.26281	0.01732	0.00048	-0.00174	53.42502	-0.00090
Mean	-0.00102	0.02871	-0.00042	0.26293	0.01735	0.00048	-0.00087	53.39166	-0.00084
%RSD	50.81680	9.63651	601.63548	0.06161	0.16981	0.06393	141.55744	0.08835	10.79262

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00058	-0.00101	0.00506	0.09010	14.36684	0.01716	13.77282	0.01018	0.00694
#2	-0.00100	-0.00167	0.00489	0.08974	14.35005	0.01719	13.79043	0.00990	0.00588
Mean	-0.00079	-0.00134	0.00498	0.08992	14.35845	0.01717	13.78163	0.01004	0.00641
%RSD	36.99136	34.48074	2.49231	0.28074	0.08265	0.10144	0.09032	1.94299	11.73848

	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	81.15314	0.00094	2.65569	-0.00289	-0.00252	50.24990	0.00032	0.00369	0.00250
#2	81.15974	0.00040	2.66308	-0.00173	-0.00080	50.22342	-0.00250	0.00217	-0.00210
Mean	81.15644	0.00067	2.65939	-0.00231	-0.00166	50.23666	-0.00109	0.00293	0.00020
%RSD	0.00575	57.52694	0.19650	35.61651	73.32703	0.03728	182.96846	36.71902	1595.79006

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	4.77690	-0.00121	0.41819	-0.00375	-0.00318	-0.00043	-0.03370	-0.00118	0.02766

#2	4.79077	-0.00080	0.41858	-0.01084	-0.00331	-0.00003	-0.04194	-0.00077	0.02733
Mean	4.78383	-0.00100	0.41839	-0.00729	-0.00324	-0.00023	-0.03782	-0.00098	0.02750
%RSD	0.20507	28.84131	0.06503	68.65549	2.81797	122.51663	15.40303	29.64657	0.86454

	Zr ppm	Pb calc	Se calc
#1	-0.00068	-0.00265	0.00290
#2	-0.00053	-0.00111	-0.00068
Mean	-0.00061	-0.00188	0.00111
%RSD	17.04087	57.88552	227.48679

Method : Paragon File : 111118A
 SampleId1 : 1111261-1 SampleId2 :
 Analysis commenced : 11/18/2011 20:17:43
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:54

[SAMPLE]

Position : TUBE64

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00061	0.02125	-0.00305	0.09892	0.10989	0.00052	0.00449	65.59205	-0.00101
#2	-0.00077	0.02561	-0.00010	0.09907	0.11002	0.00047	-0.00002	65.61850	-0.00035
Mean	-0.00069	0.02343	-0.00158	0.09900	0.10995	0.00050	0.00223	65.60527	-0.00068
%RSD	16.68782	13.16983	132.02601	0.10902	0.08045	6.34644	142.67231	0.02851	69.43052

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00066	-0.00095	-0.00211	4.39760	2.54257	-0.00052	28.44309	0.53243	-0.00034
#2	-0.00045	-0.00095	-0.00248	4.39858	2.53731	-0.00053	28.44947	0.53243	-0.00067
Mean	-0.00056	-0.00095	-0.00230	4.39809	2.53994	-0.00053	28.44628	0.53243	-0.00051
%RSD	26.37085	0.32708	11.39775	0.01581	0.14639	1.41820	0.01585	0.00000	45.70461

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	9.63001	-0.00167	0.49185	-0.00391	0.00162	0.12351	-0.00182	0.00444	0.00585
#2	9.64389	-0.00072	0.50486	-0.00121	-0.00122	0.11717	-0.00403	-0.00022	-0.00148
Mean	9.63695	-0.00120	0.49836	-0.00256	0.00020	0.12034	-0.00293	0.00211	0.00218
%RSD	0.10191	56.03499	1.84512	74.57733	991.21034	3.72876	53.30053	156.50848	237.21261

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	6.80346	0.00452	0.20849	-0.02231	-0.00292	0.00096	-0.04213	-0.00096	0.01153
#2	6.83191	0.00043	0.20850	-0.01868	-0.00331	0.00046	-0.03389	-0.00034	0.01018
Mean	6.81769	0.00248	0.20849	-0.02049	-0.00311	0.00071	-0.03801	-0.00065	0.01086
%RSD	0.29502	116.92203	0.00394	12.54350	8.80481	49.33506	15.32635	66.59418	8.75698

	Zr ppm	Pb calc	Se calc
#1	-0.00002	-0.00022	0.00538
#2	-0.00008	-0.00122	-0.00106

Mean -0.00005 -0.00072 0.00216UNDGREEN
 %RSD 94.16001 98.11799 210.98293

Method : Paragon File : 111118A Printed : 11/21/2011 12:55:54
 SampleId1 : 1111162-1A SampleId2 : [SAMPLE]
 Analysis commenced : 11/18/2011 20:19:33
 Dilution ratio : 1.00000 to 1.00000 Tray : Position : TUBE65

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00234	81.01297	2.05056	0.51048	3.08161	0.05306	0.00263	170.07738	0.04798
#2	-0.00230	81.09525	2.05490	0.51530	3.08657	0.05304	0.00316	170.53589	0.04797
Mean	-0.00232	81.05411	2.05273	0.51289	3.08409	0.05305	0.00289	170.30663	0.04798
%RSD	1.48696	0.07178	0.14943	0.66386	0.11387	0.02250	12.84898	0.19037	0.01560

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.52604	0.25402	0.37300	168.90226	16.27413	0.10198	45.17181	2.37856	0.96551
#2	0.52625	0.25462	0.37236	169.45705	16.25271	0.10179	45.15847	2.38408	0.96921
Mean	0.52615	0.25432	0.37268	169.17966	16.26342	0.10188	45.16514	2.38132	0.96736
%RSD	0.02800	0.16489	0.12187	0.23188	0.09310	0.13163	0.02088	0.16372	0.27094

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	1.39120	0.58001	3.46975	0.59418	0.59700	9.60872	0.48762	2.01638	2.02047
#2	1.38162	0.58201	3.45885	0.59458	0.59014	9.65671	0.49198	2.01991	2.01372
Mean	1.38641	0.58101	3.46430	0.59438	0.59357	9.63272	0.48980	2.01815	2.01710
%RSD	0.48873	0.24418	0.22255	0.04657	0.81670	0.35229	0.62950	0.12372	0.23676

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	8.96852	0.52175	1.19418	0.09936	0.66545	2.05674	0.13217	0.62890	0.82768
#2	8.98018	0.52216	1.19509	0.10530	0.66836	2.05789	0.13934	0.63205	0.83209
Mean	8.97435	0.52195	1.19463	0.10233	0.66690	2.05731	0.13575	0.63048	0.82989
%RSD	0.09182	0.05517	0.05399	4.10076	0.30836	0.03925	3.73731	0.35322	0.37513

	Zr ppm	Pb calc	Se calc
#1	0.04030	0.59606	2.01911
#2	0.03987	0.59162	2.01578
Mean	0.04009	0.59384	2.01745
%RSD	0.74260	0.52897	0.11668

Method : Paragon File : 111118A Printed : 11/21/2011 12:55:54
 SampleId1 : IP111118-3MB SampleId2 : [SAMPLE]
 Analysis commenced : 11/18/2011 20:21:24
 Dilution ratio : 1.00000 to 1.00000 Tray : Position : TUBE66

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00025	0.03416	0.00169	-0.00690	-0.00104	0.00038	-0.00400	-0.07066	-0.00141
#2	-0.00081	0.02544	-0.00337	-0.00637	-0.00125	0.00034	-0.00488	-0.07584	-0.00097
Mean	-0.00053	0.02980	-0.00084	-0.00664	-0.00115	0.00036	-0.00444	-0.07325	-0.00119
%RSD	74.79831	20.69711	424.48371	5.68964	12.83997	6.62470	13.88285	5.00210	25.87065

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00095	-0.00140	-0.00267	0.00599	-0.28883	-0.00212	-0.06541	-0.00076	-0.00092
#2	-0.00075	-0.00101	-0.00275	0.00004	-0.28858	-0.00211	-0.06586	-0.00086	-0.00034
Mean	-0.00085	-0.00120	-0.00271	0.00302	-0.28871	-0.00212	-0.06563	-0.00081	-0.00063
%RSD	17.18751	22.61091	2.05284	139.32009	0.06110	0.35263	0.48217	8.02261	64.37861

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	-0.18734	-0.00174	-0.01592	-0.00165	-0.00030	-0.02878	-0.00280	-0.00197	0.00095
#2	-0.18701	-0.00296	-0.01955	-0.00290	0.00297	-0.02878	-0.00195	0.00319	0.00155
Mean	-0.18717	-0.00235	-0.01773	-0.00228	0.00134	-0.02878	-0.00238	0.00061	0.00125
%RSD	0.12517	36.71504	14.51103	38.84875	173.52462	0.00000	25.54559	599.52856	33.65197

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	-0.01978	0.00043	-0.00188	0.00152	-0.00258	0.00284	-0.02472	-0.00083	-0.00124
#2	-0.01976	-0.00449	-0.00194	0.00607	-0.00283	0.00133	-0.04050	-0.00103	-0.00024
Mean	-0.01977	-0.00203	-0.00191	0.00380	-0.00271	0.00209	-0.03261	-0.00093	-0.00074
%RSD	0.09433	171.26712	2.14320	84.67457	6.49424	51.21120	34.22974	15.62222	96.45562

	Zr ppm	Pb calc	Se calc
#1	-0.00064	-0.00075	-0.00002
#2	-0.00104	0.00102	0.00209
Mean	-0.00084	0.00013	0.00104
%RSD	33.31378	939.45957	144.25031

Method : Paragon File : 111118A
 SampleId1 : IP111118-3RVS SampleId2 :
 Analysis commenced : 11/18/2011 20:23:16
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:54
 [SAMPLE]

Position : TUBE67

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	0.00881	1.06247	0.04909	0.04383	0.04853	0.01018	0.10506	4.69364	0.01870
#2	0.00903	1.06166	0.05331	0.04368	0.04870	0.01013	0.10020	4.66259	0.01886
Mean	0.00892	1.06207	0.05120	0.04375	0.04861	0.01015	0.10263	4.67811	0.01878
%RSD	1.70646	0.05369	5.82195	0.24661	0.24245	0.37470	3.34692	0.46939	0.61113

ted: 11/21/2011 12:56:08 User: MIKE LUNDGREEN

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.01773	0.04716	0.04866	0.96201	7.71237	0.03924	4.92534	0.04760	0.09545
#2	0.01856	0.04688	0.04867	0.95697	7.71035	0.03919	4.91457	0.04733	0.09668
Mean	0.01815	0.04702	0.04867	0.95949	7.71136	0.03922	4.91995	0.04747	0.09607
%RSD	3.22205	0.41481	0.01395	0.37083	0.01849	0.08246	0.15485	0.41110	0.90427

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	8.31208	0.04882	0.98852	0.04598	0.05047	1.01228	0.09817	0.05662	0.05269
#2	8.30208	0.04719	0.96930	0.04853	0.05173	1.01228	0.09708	0.04929	0.04800
Mean	8.30708	0.04800	0.97891	0.04726	0.05110	1.01228	0.09762	0.05296	0.05035
%RSD	0.08507	2.39784	1.38809	3.81763	1.74053	0.00000	0.79056	9.78759	6.58484

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	0.26769	0.10075	0.04809	-0.00232	0.04521	0.10798	0.47585	0.04796	0.04885
#2	0.26671	0.09788	0.04811	-0.00667	0.04484	0.10467	0.46350	0.04763	0.04649
Mean	0.26720	0.09932	0.04810	-0.00449	0.04503	0.10632	0.46968	0.04779	0.04767
%RSD	0.26103	2.04207	0.03402	68.49811	0.57761	2.20237	1.86032	0.48575	3.49140

	Zr ppm	Pb calc	Se calc
#1	0.04747	0.04897	0.05400
#2	0.04800	0.05066	0.04843
Mean	0.04774	0.04982	0.05122
%RSD	0.78323	2.39666	7.68762

Method : Paragon

File : 111118A

Printed : 11/21/2011 12:55:54

SampleId1 : IP111118-3LCS

SampleId2 :

[SAMPLE]

Analysis commenced : 11/18/2011 20:25:07

Dilution ratio : 1.00000 to 1.00000 Tray :

Position : TUBE68

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	0.08913	2.12985	2.00904	0.49696	1.98995	0.04798	-0.00765	36.63520	0.04647
#2	0.08945	2.15014	2.00839	0.49650	2.00659	0.04805	-0.00626	36.72014	0.04657
Mean	0.08929	2.14000	2.00871	0.49673	1.99827	0.04801	-0.00695	36.67767	0.04652
%RSD	0.25567	0.67022	0.02289	0.06528	0.58862	0.09663	14.17689	0.16374	0.15222

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.47017	0.18656	0.25100	0.93182	36.10066	0.48693	37.55483	0.47354	0.95554
#2	0.47150	0.18723	0.25346	0.93589	36.28962	0.49045	37.76502	0.47557	0.95644
Mean	0.47083	0.18689	0.25223	0.93385	36.19514	0.48869	37.65993	0.47455	0.95599
%RSD	0.19999	0.25255	0.69162	0.30837	0.36914	0.50909	0.39466	0.30342	0.06701

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	37.04135	0.48757	-0.00636	0.48232	0.48638	-0.01609	0.48353	2.13053	2.09107
#2	37.22982	0.48638	-0.00977	0.48961	0.48454	-0.02878	0.48304	2.14566	2.08272
Mean	37.13558	0.48697	-0.00807	0.48597	0.48546	-0.02243	0.48328	2.13809	2.08690
%RSD	0.35885	0.17274	29.90885	1.06038	0.26705	40.00104	0.07236	0.50038	0.28297

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	2.00321	0.50391	0.49301	-0.02028	0.46708	2.07324	-0.04526	0.47802	0.47368
#2	2.01248	0.50966	0.49723	-0.03312	0.46950	2.09511	-0.06036	0.48012	0.46761
Mean	2.00785	0.50678	0.49512	-0.02670	0.46829	2.08418	-0.05281	0.47907	0.47065
%RSD	0.32644	0.80170	0.60208	33.99325	0.36523	0.74169	20.22669	0.30924	0.91287

	Zr ppm	Pb calc	Se calc
#1	0.00228	0.48503	2.10421
#2	0.00258	0.48623	2.10368
Mean	0.00243	0.48563	2.10394
%RSD	8.84561	0.17529	0.01788

Method : Paragon File : 111118A
SampleId1 : 1111092-9 SampleId2 :
Analysis commenced : 11/18/2011 20:26:59
Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:54
[SAMPLE]
Position : TUBE69

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00122	0.02753	0.00126	0.04642	0.11690	0.00026	-0.00140	34.81911	-0.00045
#2	-0.00065	0.02355	0.00053	0.04497	0.11677	0.00023	-0.00920	34.91051	-0.00058
Mean	-0.00093	0.02554	0.00090	0.04570	0.11684	0.00024	-0.00530	34.86481	-0.00052
%RSD	43.15643	11.00312	58.20702	2.24309	0.07572	6.50636	104.01305	0.18537	17.65696

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00106	0.00097	-0.00065	0.00885	1.72697	0.00971	4.95901	0.03721	0.00359
#2	-0.00120	0.00081	-0.00048	0.00992	1.72447	0.00969	4.97517	0.03730	0.00391
Mean	-0.00113	0.00089	-0.00056	0.00938	1.72572	0.00970	4.96709	0.03726	0.00375
%RSD	8.58328	12.75162	22.17057	8.06850	0.10249	0.10266	0.23008	0.17456	6.17413

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	20.93075	-0.00096	-0.00841	-0.00369	-0.00221	10.39284	-0.00132	-0.00363	0.00053
#2	20.88171	-0.00113	-0.00386	-0.00155	-0.00278	10.45047	-0.00560	0.00155	0.00462
Mean	20.90623	-0.00105	-0.00613	-0.00262	-0.00250	10.42166	-0.00346	-0.00104	0.00257
%RSD	0.16586	11.46663	52.45071	57.59180	15.98486	0.39102	87.45522	351.84809	112.38486

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
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	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	13.95691	-0.00203	0.23579	-0.00691	-0.00202	0.00304	-0.04600	0.00253	0.00817
#2	13.97587	0.00411	0.23549	-0.00768	-0.00211	-0.00156	-0.03982	0.00298	0.00850
Mean	13.96639	0.00104	0.23564	-0.00730	-0.00207	0.00074	-0.04291	0.00275	0.00834
%RSD	0.09600	416.91536	0.09063	7.47866	3.05659	440.17482	10.17999	11.56787	2.85126

	Zr ppm	Pb calc	Se calc
#1	-0.00300	-0.00270	-0.00086
#2	-0.00290	-0.00237	0.00360
Mean	-0.00295	-0.00254	0.00137
%RSD	2.36086	9.31421	229.83706

Method : Paragon

File : 111118A

Printed : 11/21/2011 12:55:55

SampleId1 : 1111092-10

SampleId2 :

[SAMPLE]

Analysis commenced : 11/18/2011 20:28:50

Dilution ratio : 1.00000 to 1.00000 Tray :

Position : TUBE70

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00096	0.01434	-0.00116	0.04535	0.11782	0.00025	-0.00539	35.14364	-0.00089
#2	-0.00075	0.00332	-0.00053	0.04490	0.11706	0.00018	-0.00036	35.07537	-0.00092
Mean	-0.00086	0.00883	-0.00084	0.04513	0.11744	0.00022	-0.00288	35.10950	-0.00090
%RSD	17.27481	88.27008	53.05754	0.71732	0.45199	21.72377	123.59479	0.13750	1.83164

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00072	0.00084	-0.00075	-0.01506	1.74298	0.00970	5.00435	0.03951	0.00244
#2	-0.00079	0.00059	-0.00057	-0.01458	1.73172	0.00964	4.97832	0.03951	0.00252
Mean	-0.00075	0.00071	-0.00066	-0.01482	1.73735	0.00967	4.99134	0.03951	0.00248
%RSD	6.59159	24.88884	19.49218	2.26946	0.45811	0.41182	0.36889	0.00000	2.33282

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	20.99712	-0.00038	-0.00136	-0.00320	0.00044	10.60737	-0.00513	-0.00753	0.00001
#2	20.82570	-0.00025	0.00297	-0.00197	0.00263	10.63298	-0.00194	0.00105	0.00291
Mean	20.91141	-0.00032	0.00080	-0.00258	0.00154	10.62018	-0.00353	-0.00324	0.00146
%RSD	0.57962	30.30508	379.76250	33.74129	100.71049	0.17057	63.80699	187.05305	140.23903

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	14.03046	-0.00162	0.23715	-0.00599	-0.00328	-0.00147	-0.04049	0.00244	0.00783
#2	13.95406	0.00330	0.23624	-0.00260	-0.00317	-0.00097	-0.03981	0.00269	0.00682
Mean	13.99226	0.00084	0.23669	-0.00429	-0.00322	-0.00122	-0.04015	0.00256	0.00733
%RSD	0.38609	414.43805	0.27067	55.92637	2.39915	29.00895	1.20851	6.77388	9.73083

	Zr ppm	Pb calc	Se calc
#1	-0.00300	-0.00270	-0.00086
#2	-0.00290	-0.00237	0.00360
Mean	-0.00295	-0.00254	0.00137
%RSD	2.36086	9.31421	229.83706

#1	-0.00311	-0.00077	-0.00250	UNDRGREEN
#2	-0.00330	0.00110	0.00229	
Mean	-0.00321	0.00016	-0.00011	
%RSD	4.17977	803.31915	3197.14388	

Method : Paragon File : 111118A Printed : 11/21/2011 12:55:55
 SampleId1 : CCV SampleId2 : [CV]
 Analysis commenced : 11/18/2011 20:31:20
 Dilution ratio : 1.00000 to 1.00000 Tray : Position : STD6

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	0.19818	52.42634	0.51119	1.01136	1.01749	0.47510	0.53263	47.83589	0.49690
#2	0.19739	52.33206	0.51544	1.00967	1.01581	0.47649	0.52621	48.09970	0.49981
Mean	0.19779	52.37920	0.51332	1.01052	1.01665	0.47579	0.52942	47.96779	0.49835
%RSD	0.28350	0.12728	0.58465	0.11789	0.11729	0.20673	0.85703	0.38889	0.41329

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.47859	0.96220	1.03476	19.70078	48.65502	0.51766	50.09048	0.96311	0.97366
#2	0.48108	0.96973	1.03093	19.77515	48.49719	0.51518	50.05127	0.96656	0.98107
Mean	0.47984	0.96597	1.03285	19.73797	48.57610	0.51642	50.07087	0.96484	0.97737
%RSD	0.36634	0.55162	0.26205	0.26642	0.22975	0.33964	0.05537	0.25275	0.53637

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	48.78227	0.97945	5.01928	0.98602	0.99435	5.19883	0.49907	1.03746	1.01918
#2	48.66028	0.98330	5.01554	0.98790	0.99267	5.17333	0.49162	1.04699	1.02918
Mean	48.72127	0.98137	5.01741	0.98696	0.99351	5.18608	0.49534	1.04222	1.02418
%RSD	0.17706	0.27745	0.05276	0.13513	0.12018	0.34764	1.06334	0.64693	0.69043

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	4.99162	1.05072	0.50159	0.29603	0.48029	0.53599	4.91455	0.47944	0.95136
#2	4.98007	1.04372	0.50105	0.30672	0.48059	0.52780	4.91725	0.48040	0.95814
Mean	4.98585	1.04722	0.50132	0.30138	0.48044	0.53190	4.91590	0.47992	0.95475
%RSD	0.16386	0.47258	0.07578	2.50901	0.04395	1.08817	0.03885	0.14128	0.50221

	Zr ppm	Pb calc	Se calc
#1	0.97912	0.99158	1.02527
#2	0.98060	0.99108	1.03511
Mean	0.97986	0.99133	1.03019
%RSD	0.10704	0.03553	0.67578

Method : Paragon File : 111118A Printed : 11/21/2011 12:55:55
 SampleId1 : CCB SampleId2 : [CB]
 Analysis commenced : 11/18/2011 20:33:18

Dilution ratio : 1.00000 to 1.00000 Tray :

Position : STD2

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	0.00012	0.03375	-0.00084	-0.00584	-0.00079	0.00038	-0.00037	-0.04734	-0.00028
#2	-0.00091	0.03955	-0.00379	-0.00507	-0.00075	0.00045	-0.00106	-0.05224	-0.00044
Mean	-0.00040	0.03665	-0.00232	-0.00545	-0.00077	0.00042	-0.00071	-0.04979	-0.00036
%RSD	185.88645	11.17640	90.00981	9.89024	3.81492	11.54439	68.89587	6.95075	29.83854

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00088	-0.00073	-0.00220	0.00421	-0.23270	-0.00185	-0.03542	-0.00040	-0.00026
#2	-0.00123	-0.00164	-0.00193	0.00337	-0.26014	-0.00190	-0.03945	-0.00049	-0.00051
Mean	-0.00106	-0.00118	-0.00206	0.00379	-0.24642	-0.00187	-0.03744	-0.00044	-0.00038
%RSD	22.99780	54.17771	9.52213	15.52784	7.87430	1.86057	7.60792	14.68891	45.24528

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	-0.16077	-0.00049	-0.01228	-0.00420	0.00121	-0.03512	-0.00415	-0.00085	-0.00254
#2	-0.16337	-0.00205	-0.00841	-0.00545	0.00616	-0.03829	-0.00464	-0.00275	0.00334
Mean	-0.16207	-0.00127	-0.01034	-0.00483	0.00369	-0.03671	-0.00439	-0.00180	0.00040
%RSD	1.13266	87.12586	26.44052	18.37952	94.86364	6.11102	7.76517	74.69733	1040.51212

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	-0.02228	-0.00572	-0.00164	0.01112	-0.00259	-0.00367	-0.03913	-0.00099	0.00077
#2	-0.02152	-0.00080	-0.00170	0.00455	-0.00283	-0.00037	-0.04600	-0.00132	-0.00057
Mean	-0.02190	-0.00326	-0.00167	0.00783	-0.00271	-0.00202	-0.04257	-0.00116	0.00010
%RSD	2.47641	106.68348	2.93681	59.36856	6.22304	115.47995	11.40374	20.03033	940.49171

	Zr ppm	Pb calc	Se calc
#1	-0.00037	-0.00059	-0.00198
#2	-0.00036	0.00229	0.00131
Mean	-0.00037	0.00085	-0.00033
%RSD	2.15809	239.18151	700.70032

Method : Paragon File : 111118A

Printed : 11/21/2011 12:55:55

SampleId1 : 1111106-22 SampleId2 :

[SAMPLE]

Analysis commenced : 11/18/2011 20:35:17

Dilution ratio : 1.00000 to 1.00000 Tray :

Position : TUBE71

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00082	0.02102	-0.00232	0.42566	0.02149	0.00044	-0.00053	40.06937	-0.00079
#2	-0.00041	0.02033	0.00053	0.42436	0.02162	0.00045	-0.00452	40.00949	-0.00068

Mean	-0.00062	0.02068	-0.00089	0.42501	0.02155	0.00045	-0.00252	40.03943	-0.00073
%RSD	47.12291	2.34707	224.71158	0.21610	0.41000	1.33266	111.75198	0.10575	11.03197
	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00120	-0.00155	0.00051	-0.01660	0.81257	0.04390	16.37533	-0.00086	0.06245
#2	-0.00044	-0.00115	0.00032	-0.01589	0.81607	0.04392	16.35182	-0.00076	0.06155
Mean	-0.00082	-0.00135	0.00042	-0.01625	0.81432	0.04391	16.36357	-0.00081	0.06200
%RSD	65.49608	21.10671	31.87507	3.10517	0.30370	0.03965	0.10159	8.02261	1.02729
	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	193.60423	-0.00140	-0.01546	-0.00026	0.00043	123.06102	-0.00373	0.00459	0.01339
#2	193.45920	0.00046	-0.01478	-0.00199	-0.00155	123.11003	-0.00326	0.01709	0.00879
Mean	193.53172	-0.00047	-0.01512	-0.00113	-0.00056	123.08553	-0.00350	0.01084	0.01109
%RSD	0.05299	281.14315	3.19163	109.13271	250.75276	0.02816	9.67018	81.51713	29.34272
	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	15.09589	0.00166	0.61889	-0.01196	-0.00325	-0.00027	-0.02402	0.00440	0.00145
#2	15.12393	0.00207	0.61788	-0.01400	-0.00323	0.00154	-0.01578	0.00440	0.00010
Mean	15.10991	0.00186	0.61838	-0.01298	-0.00324	0.00063	-0.01990	0.00440	0.00077
%RSD	0.13120	15.54897	0.11513	11.10840	0.43420	201.63593	29.27686	0.00222	122.93601
	Zr	Pb	Se						
	ppm	calc	calc						
#1	-0.00054	0.00020	0.01046						
#2	-0.00071	-0.00170	0.01155						
Mean	-0.00062	-0.00075	0.01101						
%RSD	18.71783	179.78559	7.02521						

Method : Paragon File : 111118A
SampleId1 : 1111106-22D **SampleId2** :
Analysis commenced : 11/18/2011 20:37:12
Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:55

[SAMPLE]

Position : TUBE72

Final concentrations

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00077	0.01791	-0.00274	0.40717	0.02112	0.00047	0.00086	39.08771	-0.00071
#2	-0.00061	0.02046	0.00011	0.41084	0.02120	0.00043	-0.00313	39.08342	-0.00069
Mean	-0.00069	0.01919	-0.00132	0.40900	0.02116	0.00045	-0.00114	39.08557	-0.00070
%RSD	16.38754	9.42773	152.78105	0.63402	0.27844	6.06714	247.98268	0.00777	1.89008
	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00092	-0.00065	0.00015	-0.01565	0.76510	0.04301	15.91831	-0.00012	0.06040
#2	-0.00154	-0.00086	0.00033	-0.01613	0.76336	0.04304	15.95266	-0.00030	0.05991
Mean	-0.00123	-0.00075	0.00024	-0.01589	0.76423	0.04302	15.93549	-0.00021	0.06016

%RSD	35.59670	20.23995	55.48533	2.11659	0.16179	0.05781	0.15242	61.11895	0.57749
	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	186.90624	-0.00069	-0.00909	-0.00222	-0.00039	116.34917	-0.00278	0.00295	0.01185
#2	186.16059	0.00026	-0.01432	-0.00088	0.00142	116.25860	0.00101	0.01430	0.00887
Mean	186.53341	-0.00021	-0.01171	-0.00155	0.00052	116.30389	-0.00088	0.00863	0.01036
%RSD	0.28266	312.62431	31.60165	61.21874	247.85440	0.05506	303.45547	92.99991	20.34708
	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	14.53599	0.00002	0.61367	-0.00807	-0.00363	-0.00447	-0.02058	0.00420	0.00279
#2	14.53161	0.00453	0.61485	-0.01399	-0.00363	-0.00587	-0.02814	0.00358	0.00245
Mean	14.53380	0.00227	0.61426	-0.01103	-0.00363	-0.00517	-0.02436	0.00389	0.00262
%RSD	0.02132	140.18577	0.13611	37.96901	0.19362	19.20909	21.92078	11.14892	9.06473
	Zr	Pb	Se						
	ppm	calc	calc						
#1	-0.00185	-0.00100	0.00889						
#2	-0.00136	0.00066	0.01068						
Mean	-0.00160	-0.00017	0.00979						
%RSD	21.36438	686.19475	12.93927						

Method : Paragon

File : 111118A

Printed : 11/21/2011 12:55:56

SampleId1 : 1111106-22L 5X

SampleId2 :

[SAMPLE]

Analysis commenced : 11/18/2011 20:39:12

Dilution ratio : 1.00000 to 1.00000 Tray :

Position : TUBE73

Final concentrations

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	ppm								
#1	-0.00035	0.02175	-0.00326	0.07870	0.00333	0.00041	-0.00643	8.03257	-0.00063
#2	0.00002	0.02467	0.00042	0.07923	0.00333	0.00043	-0.00088	8.01156	-0.00071
Mean	-0.00017	0.02321	-0.00142	0.07896	0.00333	0.00042	-0.00366	8.02206	-0.00067
%RSD	156.63098	8.88885	183.37612	0.47831	0.00000	2.76510	107.25620	0.18523	8.69523
	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm								
#1	-0.00067	-0.00083	-0.00167	-0.01732	-0.11494	0.00511	3.27095	-0.00095	0.00932
#2	-0.00040	-0.00080	-0.00148	-0.01732	-0.11644	0.00512	3.27634	-0.00095	0.01161
Mean	-0.00053	-0.00081	-0.00158	-0.01732	-0.11569	0.00511	3.27364	-0.00095	0.01046
%RSD	36.50927	3.20210	8.51483	0.00000	0.91502	0.04868	0.11625	0.00000	15.49130
	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	ppm								
#1	40.10920	-0.00082	-0.01478	0.00024	-0.00219	24.26781	-0.00052	0.00157	0.00129
#2	40.07388	-0.00127	-0.01319	-0.00004	0.00010	24.23541	-0.00430	-0.00071	0.00410
Mean	40.09154	-0.00105	-0.01398	0.00010	-0.00104	24.25161	-0.00241	0.00043	0.00270
%RSD	0.06229	29.81323	8.05298	203.54507	155.00262	0.09446	110.93761	378.60896	73.76491

ted: 11/21/2011 12:56:08 User: MIKE LUNDGREEN

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	2.99040	-0.00285	0.12391	0.00263	-0.00290	0.00263	-0.02264	0.00015	0.00010
#2	2.98446	-0.00203	0.12386	0.00645	-0.00306	-0.00297	-0.03294	0.00068	0.00044
Mean	2.98743	-0.00244	0.12389	0.00454	-0.00298	-0.00017	-0.02779	0.00041	0.00027
%RSD	0.14052	23.76012	0.02646	59.51943	3.77494	2339.86671	26.20193	90.61239	88.30749

	Zr ppm	Pb calc	Se calc
#1	-0.00085	-0.00138	0.00138
#2	-0.00103	0.00005	0.00250
Mean	-0.00094	-0.00066	0.00194
%RSD	13.34860	152.61077	40.69749

Method : Paragon

File : 111118A

Printed : 11/21/2011 12:55:56

SampleId1 : 1111106-22MS

SampleId2 :

[SAMPLE]

Analysis commenced : 11/18/2011 20:41:06

Dilution ratio : 1.00000 to 1.00000 Tray :

Position : TUBE74

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	0.08977	2.20092	2.05772	0.94061	2.03150	0.04787	-0.00521	75.91250	0.04720
#2	0.08997	2.18810	2.03354	0.93249	2.02651	0.04773	-0.00313	75.56086	0.04676
Mean	0.08987	2.19451	2.04563	0.93655	2.02901	0.04780	-0.00417	75.73668	0.04698
%RSD	0.16440	0.41335	0.83588	0.61268	0.17397	0.21441	35.19692	0.32831	0.67235

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.46381	0.18121	0.26081	0.91816	49.66452	0.64580	53.30646	0.46354	1.01444
#2	0.46187	0.18021	0.25981	0.91625	49.43507	0.64320	53.11421	0.46160	1.00669
Mean	0.46284	0.18071	0.26031	0.91720	49.54979	0.64450	53.21034	0.46257	1.01057
%RSD	0.29638	0.39348	0.27202	0.14773	0.32744	0.28566	0.25548	0.29708	0.54192

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	220.97971	0.48179	-0.00454	0.48052	0.48655	121.88880	0.48805	2.25250	2.19692
#2	219.23463	0.48029	-0.01250	0.48256	0.48615	121.25936	0.48428	2.24351	2.21347
Mean	220.10717	0.48104	-0.00852	0.48154	0.48635	121.57408	0.48616	2.24801	2.20520
%RSD	0.56062	0.21983	66.06177	0.29920	0.05763	0.36610	0.54844	0.28276	0.53067

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	16.86951	0.53472	1.10956	-0.02453	0.45962	2.13885	-0.03495	0.47703	0.45478
#2	16.79638	0.51747	1.10717	-0.02130	0.45841	2.13603	-0.03358	0.47621	0.45208
Mean	16.83295	0.52609	1.10836	-0.02291	0.45902	2.13744	-0.03426	0.47662	0.45343
%RSD	0.30722	2.31798	0.15239	9.97378	0.18553	0.09337	2.83638	0.12190	0.42105

	Zr ppm	Pb calc	SeUNDGREEN calc
#1	-0.00144	0.48454	2.21543
#2	-0.00167	0.48496	2.22348
Mean	-0.00155	0.48475	2.21945
%RSD	10.57454	0.06041	0.25631

Method : Paragon File : 111118A
 SampleId1 : 1111106-22MSD SampleId2 :
 Analysis commenced : 11/18/2011 20:43:09
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:56
 [SAMPLE]
 Position : TUBE75

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	0.09044	2.19550	2.05577	0.93916	2.02719	0.04806	-0.00504	76.01757	0.04628
#2	0.09040	2.19862	2.05230	0.95087	2.03167	0.04792	-0.00399	76.00690	0.04695
Mean	0.09042	2.19706	2.05403	0.94501	2.02943	0.04799	-0.00452	76.01224	0.04662
%RSD	0.03638	0.10028	0.11947	0.87645	0.15610	0.20531	16.35156	0.00993	1.02299

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.46547	0.18193	0.25971	0.92068	49.51712	0.64302	53.26856	0.46391	1.02070
#2	0.46485	0.18118	0.26117	0.91912	49.63584	0.64497	53.33743	0.46354	1.01798
Mean	0.46516	0.18156	0.26044	0.91990	49.57648	0.64400	53.30299	0.46372	1.01934
%RSD	0.09382	0.29266	0.39591	0.11968	0.16932	0.21479	0.09135	0.05645	0.18862

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	220.60185	0.48597	-0.00090	0.48373	0.48603	122.29459	0.49132	2.26972	2.21522
#2	220.90849	0.48536	-0.00841	0.48344	0.47923	122.15465	0.48672	2.25507	2.20241
Mean	220.75517	0.48566	-0.00465	0.48359	0.48263	122.22462	0.48902	2.26239	2.20881
%RSD	0.09822	0.08908	114.03609	0.04273	0.99600	0.08096	0.66485	0.45778	0.40993

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	16.83272	0.52856	1.10925	-0.02520	0.45905	2.15327	-0.03015	0.47761	0.45883
#2	16.90595	0.52527	1.11077	-0.02304	0.45967	2.15065	-0.03426	0.47790	0.45748
Mean	16.86934	0.52692	1.11001	-0.02412	0.45936	2.15196	-0.03221	0.47775	0.45816
%RSD	0.30696	0.44097	0.09718	6.31761	0.09500	0.08622	9.04192	0.04250	0.20836

	Zr ppm	Pb calc	Se calc
#1	-0.00155	0.48526	2.23337
#2	-0.00228	0.48063	2.21995
Mean	-0.00191	0.48295	2.22666
%RSD	27.05008	0.67814	0.42612

Method : Paragon File : 111118A

Printed : 11/21/2011 12:55:56

SampleId1 : 1111106-35 SampleId2 :
 Analysis commenced : 11/18/2011 20:45:03
 Dilution ratio : 1.00000 to 1.00000 Tray :

[SAMPLE]
 Position : TUBE76

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00024	0.02999	-0.00042	-0.00530	-0.00075	0.00053	-0.00470	-0.04187	-0.00082
#2	-0.00082	0.02702	-0.00179	-0.00553	0.00004	0.00051	-0.00505	-0.01135	-0.00053
Mean	-0.00053	0.02851	-0.00111	-0.00542	-0.00036	0.00052	-0.00487	-0.02661	-0.00067
%RSD	77.97318	7.36096	87.57733	2.98797	157.40759	2.76522	4.99042	81.08599	31.06819
	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00123	-0.00107	-0.00211	-0.01161	-0.31926	-0.00214	-0.06362	-0.00095	0.00007
#2	-0.00068	-0.00086	-0.00203	-0.01125	-0.31103	-0.00203	-0.03945	-0.00067	-0.00026
Mean	-0.00095	-0.00097	-0.00207	-0.01143	-0.31515	-0.00208	-0.05154	-0.00081	-0.00010
%RSD	40.95157	15.72992	2.87016	2.20678	1.84697	3.82825	33.16005	24.06785	237.98609
	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	-0.14812	-0.00167	-0.00204	-0.00299	0.00212	-0.01291	-0.00378	-0.00097	-0.00510
#2	-0.07573	-0.00110	-0.01091	-0.00112	-0.00034	0.02198	-0.00121	0.00105	0.00155
Mean	-0.11193	-0.00138	-0.00647	-0.00205	0.00089	0.00453	-0.00250	0.00004	-0.00178
%RSD	45.73549	29.43875	96.88917	64.30433	195.21371	544.22484	72.72307	3698.13705	264.55055
	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	-0.00599	-0.00449	-0.00162	0.00689	-0.00295	-0.00108	-0.04187	-0.00055	0.00145
#2	-0.00197	-0.00408	-0.00115	0.00581	-0.00282	0.00013	-0.03294	-0.00067	0.00279
Mean	-0.00398	-0.00428	-0.00139	0.00635	-0.00288	-0.00047	-0.03741	-0.00061	0.00212
%RSD	71.48405	6.76167	24.16687	12.03918	3.16755	180.64277	16.87057	14.29870	44.89084
	Zr ppm	Pb calc	Se calc						
#1	-0.00108	0.00042	-0.00372						
#2	-0.00091	-0.00060	0.00138						
Mean	-0.00099	-0.00009	-0.00117						
%RSD	12.37501	793.46223	308.17656						

Method : Paragon File : 111118A
 SampleId1 : 1111106-48 SampleId2 :
 Analysis commenced : 11/18/2011 20:46:55
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:56
 [SAMPLE]
 Position : TUBE77

Final concentrations

Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
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#1	-0.00066	0.02242	-0.00432	-0.00637	-0.00129	0.00037	0.00154	-0.06807	-0.00057
#2	-0.00020	0.01608	-0.00453	-0.00728	-0.00125	0.00031	-0.00487	-0.06606	-0.00098
Mean	-0.00043	0.01925	-0.00442	-0.00683	-0.00127	0.00034	-0.00166	-0.06706	-0.00078
%RSD	76.87401	23.30667	3.36737	9.48121	2.31569	13.64567	272.55166	2.12482	38.21504

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm	ppm							
#1	-0.00143	-0.00117	-0.00194	-0.01446	-0.29631	-0.00211	-0.07033	-0.00095	-0.00034
#2	-0.00095	-0.00102	-0.00185	-0.01446	-0.29532	-0.00212	-0.06944	-0.00095	0.00064
Mean	-0.00119	-0.00109	-0.00189	-0.01446	-0.29582	-0.00211	-0.06989	-0.00095	0.00015
%RSD	28.55759	10.01506	3.29819	0.00000	0.23851	0.11774	0.90567	0.00000	468.40570

	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.17480	-0.00137	-0.01023	-0.00369	0.00121	-0.03195	-0.00378	-0.00210	-0.00127
#2	-0.17486	-0.00069	-0.01523	-0.00017	0.00004	-0.05416	-0.00377	0.00118	-0.00195
Mean	-0.17483	-0.00103	-0.01273	-0.00193	0.00063	-0.04305	-0.00378	-0.00046	-0.00161
%RSD	0.02234	46.62256	27.79693	128.88832	131.33087	36.47281	0.12602	504.04458	30.00090

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.01914	-0.00408	-0.00197	0.00753	-0.00296	-0.00257	-0.03294	-0.00055	0.00077
#2	-0.02040	-0.00326	-0.00196	0.00159	-0.00314	-0.00717	-0.02951	-0.00075	0.00077
Mean	-0.01977	-0.00367	-0.00196	0.00456	-0.00305	-0.00487	-0.03123	-0.00065	0.00077
%RSD	4.51893	15.79957	0.41603	92.23591	4.14988	66.76535	7.77329	22.31779	0.00000

	Zr	Pb	Se
	ppm	calc	calc
#1	-0.00091	-0.00042	-0.00154
#2	-0.00042	-0.00003	-0.00091
Mean	-0.00067	-0.00023	-0.00122
%RSD	51.64178	124.36461	36.87379

Method : Paragon File : 111118A Printed : 11/21/2011 12:55:57
SampleId1 : 1111106-61 SampleId2 : [SAMPLE]
Analysis commenced : 11/18/2011 20:48:54
Dilution ratio : 1.00000 to 1.00000 Tray : Position : TUBE78

Final concentrations

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00081	0.01713	-0.00074	0.05779	0.02616	0.00040	-0.00470	42.39136	-0.00076
#2	-0.00076	0.01825	-0.00253	0.05710	0.02616	0.00034	-0.00314	42.40584	-0.00107
Mean	-0.00078	0.01769	-0.00163	0.05745	0.02616	0.00037	-0.00392	42.39860	-0.00092
%RSD	4.26811	4.49040	77.57172	0.84523	0.00000	12.13287	28.18111	0.02416	24.06342

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00091	-0.00060	-0.00129	-0.01553	1.28263	0.03007	11.23394	-0.00076	0.00408

#2	-0.00085	-0.00073	-0.00157	-0.01553	1.27688	0.03007	11.25873	-0.00086	0.00440
Mean	-0.00088	-0.00067	-0.00143	-0.01553	1.27975	0.03007	11.24634	-0.00081	0.00424
%RSD	5.53004	13.70729	13.74677	0.00000	0.31768	0.00000	0.15585	8.02261	5.45915

	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	111.63677	-0.00191	-0.00454	0.00052	-0.00046	68.73989	-0.00179	0.00912	0.01194
#2	111.88445	-0.00113	-0.00272	0.00166	-0.00034	68.84741	-0.00289	0.02048	0.01271
Mean	111.76061	-0.00152	-0.00363	0.00109	-0.00040	68.79365	-0.00234	0.01480	0.01232
%RSD	0.15671	36.27536	35.43848	74.35447	21.80008	0.11051	33.18822	54.27859	4.39944

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	11.26318	-0.00121	0.50075	-0.00739	-0.00316	-0.00188	-0.04049	0.00023	0.00044
#2	11.29492	0.00330	0.50099	-0.00472	-0.00316	0.00183	-0.03294	0.00080	0.00010
Mean	11.27905	0.00104	0.50087	-0.00605	-0.00316	-0.00002	-0.03672	0.00052	0.00027
%RSD	0.19893	305.36486	0.03463	31.26491	0.00000	10928.37696	14.54349	78.23722	88.30749

	Zr	Pb	Se
	ppm	calc	calc
#1	-0.00239	-0.00013	0.01100
#2	-0.00248	0.00033	0.01530
Mean	-0.00243	0.00010	0.01315
%RSD	2.45722	335.36845	23.09901

Method : Paragon File : 111118A
 SampleId1 : 1111134-1 10X SampleId2 :
 Analysis commenced : 11/18/2011 20:50:51
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:57
 [SAMPLE]

Position : TUBE79

Final concentrations

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00020	0.01488	-0.00158	0.13227	0.01920	0.00028	-0.00556	1.12501	-0.00066
#2	-0.00040	0.01416	-0.00569	0.13212	0.01912	0.00025	0.00189	1.12126	-0.00084
Mean	-0.00030	0.01452	-0.00363	0.13219	0.01916	0.00026	-0.00184	1.12314	-0.00075
%RSD	47.24285	3.51772	79.94103	0.08165	0.30750	5.90637	287.08433	0.23611	17.12008

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00031	0.00055	-0.00185	4.42415	-0.17707	0.00497	0.03305	0.06821	0.00097
#2	-0.00031	0.00058	-0.00148	4.41702	-0.16784	0.00494	0.03261	0.06812	-0.00149
Mean	-0.00031	0.00057	-0.00167	4.42059	-0.17245	0.00495	0.03283	0.06817	-0.00026
%RSD	0.04086	4.55717	15.73849	0.11406	3.78510	0.50256	0.96400	0.09545	665.31878

	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	7.34625	0.00338	0.02594	0.00321	-0.00088	0.03150	-0.00134	-0.00287	-0.00045
#2	7.29532	0.00304	0.02776	-0.00088	-0.00165	0.02198	-0.00271	0.00053	0.00364

Mean	7.32078	0.00321	0.02685	0.00116	-0.00127	0.02674	-0.00202	-0.00117	0.00159
%RSD	0.49186	7.46949	4.79278	248.34812	42.73260	25.16667	47.82543	205.71483	181.57475

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	0.07364	0.00207	0.17616	-0.00003	-0.00292	-0.00320	-0.02292	-0.00087	0.00985
#2	0.07024	0.00125	0.17573	0.00405	-0.00306	-0.00211	-0.03253	-0.00075	0.01086
Mean	0.07194	0.00166	0.17594	0.00201	-0.00299	-0.00266	-0.02772	-0.00081	0.01035
%RSD	3.34600	34.94081	0.17251	143.22919	3.29209	29.05291	24.50247	10.57939	6.88757

	Zr	Pb	Se
	ppm	calc	calc
#1	-0.00022	0.00048	-0.00126
#2	-0.00037	-0.00139	0.00260
Mean	-0.00030	-0.00046	0.00067
%RSD	36.96597	289.46595	405.62234

Method : Paragon File : 111118A Printed : 11/21/2011 12:55:57
 SampleId1 : 1111134-2 10X SampleId2 : [SAMPLE]
 Analysis commenced : 11/18/2011 20:52:58
 Dilution ratio : 1.00000 to 1.00000 Tray : Position : TUBE80

Final concentrations

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00024	0.00582	-0.00537	0.27289	0.04236	0.00017	-0.00591	0.77404	-0.00094
#2	-0.00045	0.01567	0.00211	0.27312	0.04282	0.00020	-0.00314	0.76942	-0.00065
Mean	-0.00034	0.01074	-0.00163	0.27301	0.04259	0.00019	-0.00453	0.77173	-0.00079
%RSD	41.56166	64.84629	323.99529	0.05934	0.76093	11.68113	43.29620	0.42266	26.05881

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00089	0.00137	-0.00230	2.66162	-0.19029	0.01215	-0.00186	0.03730	-0.00116
#2	-0.00082	0.00103	-0.00184	2.67024	-0.20052	0.01222	-0.00588	0.03739	-0.00051
Mean	-0.00086	0.00120	-0.00207	2.66593	-0.19540	0.01219	-0.00387	0.03735	-0.00083
%RSD	5.76416	20.03196	15.80390	0.22855	3.70151	0.44942	73.58743	0.17413	55.52191

	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	10.56251	-0.00011	0.18164	-0.00069	-0.00070	0.04419	-0.00430	-0.00154	0.00038
#2	10.62903	-0.00116	0.18711	-0.00135	-0.00220	0.02833	-0.00405	-0.00470	-0.00132
Mean	10.59577	-0.00064	0.18437	-0.00102	-0.00145	0.03626	-0.00418	-0.00312	-0.00047
%RSD	0.44392	116.39197	2.09614	45.63741	72.74567	30.93474	4.29914	71.76126	257.64610

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	0.15471	0.00248	0.17468	0.00326	-0.00318	-0.00315	-0.03476	-0.00089	0.00346
#2	0.16054	0.00043	0.17596	-0.00474	-0.00336	0.00495	-0.04438	-0.00121	0.00212
Mean	0.15763	0.00145	0.17532	-0.00074	-0.00327	0.00090	-0.03957	-0.00105	0.00279

%RSD	2.61345	99.65383	0.51468	763.28224	3.87213	636.17551	17.18469	21.94968	34.07484
	Zr	Pb	Se						
	ppm	calc	calc						
#1	-0.00050	-0.00070	-0.00026						
#2	-0.00030	-0.00192	-0.00244						
Mean	-0.00040	-0.00131	-0.00135						
%RSD	34.27796	65.68628	114.67698						

Method : Paragon File : 111118A Printed : 11/21/2011 12:55:57
SampleId1 : CCV SampleId2 : [CV]
Analysis commenced : 11/18/2011 20:55:17
Dilution ratio : 1.00000 to 1.00000 Tray : Position : STD6

Final concentrations

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	0.19897	52.78780	0.51141	1.01863	1.02707	0.47652	0.54427	48.00149	0.50385
#2	0.19877	52.75960	0.51183	1.01840	1.02462	0.47658	0.53492	48.12456	0.50380
Mean	0.19887	52.77370	0.51162	1.01852	1.02584	0.47655	0.53960	48.06303	0.50382
%RSD	0.06976	0.03778	0.05866	0.01595	0.16857	0.00836	1.22626	0.18106	0.00584

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	0.48124	0.96653	1.04721	19.78141	49.09499	0.52326	50.33591	0.96386	0.97976
#2	0.48185	0.97013	1.04613	19.80004	49.05995	0.52258	50.30453	0.96637	0.98050
Mean	0.48155	0.96833	1.04667	19.79072	49.07747	0.52292	50.32022	0.96512	0.98013
%RSD	0.09076	0.26309	0.07309	0.06657	0.05048	0.09159	0.04409	0.18438	0.05349

	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	49.13634	0.98943	4.99846	0.98763	0.99168	5.21157	0.50205	1.05236	1.02083
#2	49.11992	0.99444	4.99799	0.99234	0.98539	5.26576	0.50338	1.04077	1.02824
Mean	49.12813	0.99194	4.99823	0.98999	0.98854	5.23867	0.50272	1.04656	1.02453
%RSD	0.02364	0.35711	0.00662	0.33646	0.44975	0.73135	0.18737	0.78319	0.51120

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm								
#1	5.00165	1.06184	0.50656	0.30487	0.47960	0.52632	4.94751	0.48237	0.94594
#2	5.00053	1.05237	0.50553	0.31293	0.47994	0.52923	4.93305	0.48312	0.94526
Mean	5.00109	1.05710	0.50605	0.30890	0.47977	0.52777	4.94028	0.48274	0.94560
%RSD	0.01585	0.63342	0.14363	1.84620	0.04988	0.38931	0.20694	0.10880	0.05070

	Zr	Pb	Se
	ppm	calc	calc
#1	0.98558	0.99033	1.03133
#2	0.98478	0.98771	1.03241
Mean	0.98518	0.98902	1.03187
%RSD	0.05768	0.18769	0.07403

ted: 11/21/2011 12:56:08 User: MIKE LUNDGREEN
Method : Paragon File : 111118A
SampleId1 : CCB SampleId2 :
Analysis commenced : 11/18/2011 20:57:26
Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:57
[CB]

Position : STD2

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00014	0.04939	0.00253	-0.00507	-0.00088	0.00056	0.00258	-0.05598	-0.00035
#2	-0.00030	0.04094	-0.00421	-0.00515	-0.00096	0.00052	-0.00366	-0.05742	-0.00041
Mean	-0.00022	0.04517	-0.00084	-0.00511	-0.00092	0.00054	-0.00054	-0.05670	-0.00038
%RSD	51.90018	13.22554	566.00288	1.05546	6.41794	5.50484	819.67766	1.79519	12.76411
	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00054	-0.00076	-0.00202	0.00183	-0.28858	-0.00199	-0.03766	-0.00040	-0.00018
#2	-0.00061	-0.00089	-0.00212	0.00219	-0.28384	-0.00199	-0.04527	-0.00040	-0.00157
Mean	-0.00057	-0.00083	-0.00207	0.00201	-0.28621	-0.00199	-0.04147	-0.00040	-0.00087
%RSD	8.54104	11.20672	3.37623	12.56935	1.17096	0.25027	12.97453	0.00000	112.46498
	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	-0.16326	-0.00120	-0.01592	-0.00077	0.00100	-0.03195	-0.00231	0.00168	0.00249
#2	-0.16536	-0.00160	-0.00613	-0.00064	0.00086	-0.03829	-0.00245	-0.00097	0.00027
Mean	-0.16431	-0.00140	-0.01102	-0.00071	0.00093	-0.03512	-0.00238	0.00036	0.00138
%RSD	0.90328	20.52891	62.73911	13.13249	10.63816	12.77405	3.94695	525.58879	113.61183
	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	-0.01938	0.00002	-0.00168	0.00189	-0.00307	0.00313	-0.03913	-0.00071	-0.00124
#2	-0.02079	-0.00408	-0.00169	0.00649	-0.00287	0.00354	-0.02883	-0.00067	0.00010
Mean	-0.02008	-0.00203	-0.00169	0.00419	-0.00297	0.00334	-0.03398	-0.00069	-0.00057
%RSD	4.96396	142.76029	0.48444	77.75696	4.73448	8.60964	21.42719	4.22521	166.45002
	Zr ppm	Pb calc	Se calc						
#1	0.00035	0.00041	0.00222						
#2	-0.00017	0.00036	-0.00014						
Mean	0.00009	0.00038	0.00104						
%RSD	403.01496	9.10897	160.58392						

Method : Paragon File : 111118A
SampleId1 : 1111134-3 10X SampleId2 :
Analysis commenced : 11/18/2011 20:59:13
Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:57
[SAMPLE]

Position : TUBE81

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00024	0.02687	-0.00832	0.13189	0.01916	0.00046	0.00033	1.09472	-0.00071
#2	-0.00066	0.02687	-0.00432	0.13242	0.01916	0.00046	-0.00470	1.09587	-0.00051
Mean	-0.00045	0.02687	-0.00632	0.13216	0.01916	0.00046	-0.00219	1.09530	-0.00061
%RSD	65.86474	0.00295	44.78435	0.28585	0.00000	0.59803	162.56511	0.07449	23.42815

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00092	0.00027	-0.00220	4.42993	-0.20875	0.00489	0.02679	0.06775	-0.00165
#2	-0.00079	0.00002	-0.00184	4.44911	-0.21249	0.00493	0.02679	0.06785	-0.00026
Mean	-0.00086	0.00015	-0.00202	4.43952	-0.21062	0.00491	0.02679	0.06780	-0.00096
%RSD	11.40166	119.40613	12.71452	0.30552	1.25634	0.60826	0.00000	0.09597	102.84308

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	7.29007	0.00199	0.03391	-0.00161	0.00196	0.00929	-0.00062	-0.00440	-0.00105
#2	7.30866	0.00189	0.03049	0.00002	0.00007	0.01564	-0.00453	-0.00213	0.00126
Mean	7.29936	0.00194	0.03220	-0.00080	0.00102	0.01247	-0.00258	-0.00326	0.00011
%RSD	0.18003	3.71077	7.49453	144.70224	131.17831	35.99276	107.18625	49.18789	1550.20508

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	0.06924	0.00084	0.17639	0.00959	-0.00306	0.00049	-0.03871	-0.00095	0.01086
#2	0.06748	-0.00244	0.17704	0.00533	-0.00320	-0.00440	-0.03873	-0.00144	0.00985
Mean	0.06836	-0.00080	0.17671	0.00746	-0.00313	-0.00196	-0.03872	-0.00120	0.01035
%RSD	1.82242	289.64674	0.25996	40.43156	3.14564	176.98026	0.02385	28.80361	6.88757

	Zr ppm	Pb calc	Se calc
#1	-0.00087	0.00077	-0.00216
#2	-0.00090	0.00006	0.00013
Mean	-0.00089	0.00041	-0.00102
%RSD	2.44465	122.52991	159.53612

Method : Paragon File : 111118A
 SampleId1 : 1111161-1 10X SampleId2 :
 Analysis commenced : 11/18/2011 21:01:05
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:58

[SAMPLE]

Position : TUBE82

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00070	0.03485	-0.00390	0.67930	0.12169	0.00059	-0.00176	3.20748	-0.00110
#2	-0.00055	0.03323	-0.00621	0.67945	0.12128	0.00052	-0.00366	3.21617	-0.00069
Mean	-0.00063	0.03404	-0.00505	0.67938	0.12149	0.00056	-0.00271	3.21183	-0.00089
%RSD	16.69185	3.36156	32.41044	0.01592	0.24276	8.67990	49.70351	0.19121	32.95516

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
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	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00126	-0.00044	-0.00247	1.78660	-0.00739	0.07165	0.17360	0.01946	-0.00165
#2	-0.00051	-0.00019	-0.00220	1.78394	-0.00290	0.07133	0.17449	0.01946	-0.00165
Mean	-0.00088	-0.00032	-0.00233	1.78527	-0.00515	0.07149	0.17405	0.01946	-0.00165
%RSD	60.51363	54.80175	8.06498	0.10505	61.69694	0.31985	0.36371	0.00000	0.00000

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	43.79439	-0.00120	0.09217	-0.00303	0.00079	0.07275	-0.00453	-0.00435	0.00370
#2	43.68550	0.00057	0.08033	-0.00193	0.00156	0.07592	0.00061	-0.00194	0.00200
Mean	43.73995	-0.00032	0.08625	-0.00248	0.00118	0.07433	-0.00196	-0.00314	0.00285
%RSD	0.17604	393.96853	9.70316	31.40274	46.05620	3.01816	185.04939	54.06520	42.32773

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	0.63437	0.00371	0.54169	0.00623	-0.00303	0.00138	-0.04996	-0.00171	0.00514
#2	0.63271	-0.00080	0.53986	0.00336	-0.00317	-0.00362	-0.04172	-0.00102	0.00615
Mean	0.63354	0.00145	0.54078	0.00480	-0.00310	-0.00112	-0.04584	-0.00136	0.00565
%RSD	0.18473	219.28102	0.23844	42.24600	3.17591	314.44577	12.71132	36.05712	12.62668

	Zr ppm	Pb calc	Se calc
#1	-0.00121	-0.00048	0.00102
#2	-0.00043	0.00040	0.00068
Mean	-0.00082	-0.00004	0.00085
%RSD	66.90568	1524.70507	27.90552

Method : Paragon File : 111118A
SampleId1 : 1111161-2 10X SampleId2 :
Analysis commenced : 11/18/2011 21:02:57
Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:58
[SAMPLE]
Position : TUBE83

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00014	0.03933	0.00063	3.76165	0.25744	0.00063	-0.00054	9.35268	-0.00066
#2	-0.00013	0.04512	-0.00390	3.77968	0.25823	0.00062	-0.00158	9.38427	-0.00057
Mean	-0.00013	0.04222	-0.00163	3.77067	0.25784	0.00063	-0.00106	9.36847	-0.00061
%RSD	2.14399	9.68622	196.21466	0.33808	0.21769	1.14609	69.47841	0.23845	10.19523

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00087	0.00046	-0.00221	2.00053	1.05144	0.35107	0.57919	0.02388	-0.00190
#2	-0.00038	0.00078	-0.00220	2.00584	1.05169	0.35207	0.58233	0.02424	-0.00083
Mean	-0.00062	0.00062	-0.00220	2.00318	1.05156	0.35157	0.58076	0.02406	-0.00137
%RSD	54.68688	36.18891	0.17130	0.18756	0.01680	0.20141	0.38160	1.08104	55.08201

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
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#1	156.90418	-0.00021	-0.10256	-0.00077	0.00026	1.49187	-0.00369	0.00132	0.00289
#2	157.08918	-0.00130	-0.12166	-0.00222	0.00057	1.51093	-0.00430	0.00030	0.00690
Mean	156.99668	-0.00076	-0.11211	-0.00149	0.00041	1.50140	-0.00399	0.00081	0.00489
%RSD	0.08332	101.31743	12.04513	68.60310	52.57771	0.89769	10.74266	88.79795	57.87533

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	2.95511	0.00371	1.45685	0.00641	-0.00308	0.00137	-0.03706	-0.00044	0.00010
#2	2.96845	0.00289	1.46329	0.00702	-0.00313	-0.00433	-0.04393	-0.00040	0.00077
Mean	2.96178	0.00330	1.46007	0.00672	-0.00310	-0.00148	-0.04049	-0.00042	0.00044
%RSD	0.31831	17.57333	0.31201	6.46103	1.13244	272.51287	11.99436	7.05109	108.72443

	Zr	Pb	Se
	ppm	calc	calc
#1	-0.00115	-0.00008	0.00237
#2	-0.00095	-0.00036	0.00470
Mean	-0.00105	-0.00022	0.00353
%RSD	13.15165	88.60740	46.69627

Method : Paragon File : 111118A Printed : 11/21/2011 12:55:58
SampleId1 : 1111161-3 10X SampleId2 : [SAMPLE]
Analysis commenced : 11/18/2011 21:04:50
Dilution ratio : 1.00000 to 1.00000 Tray : Position : TUBE84

Final concentrations

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00009	0.03214	-0.00632	0.45913	0.01445	0.00051	-0.00262	0.60310	-0.00046
#2	-0.00019	0.03460	-0.00337	0.45859	0.01433	0.00053	-0.00418	0.59618	-0.00105
Mean	-0.00014	0.03337	-0.00484	0.45886	0.01439	0.00052	-0.00340	0.59964	-0.00075
%RSD	50.45825	5.21804	43.04339	0.08243	0.61410	2.83440	32.51767	0.81570	55.71453

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00038	-0.00080	-0.00248	2.80430	-0.19827	0.00285	-0.02782	0.02443	0.00236
#2	-0.00059	-0.00089	-0.00247	2.79215	-0.21748	0.00286	-0.03319	0.02424	0.00138
Mean	-0.00048	-0.00084	-0.00248	2.79822	-0.20788	0.00286	-0.03050	0.02434	0.00187
%RSD	30.09879	7.42165	0.24324	0.30698	6.53436	0.17439	12.45111	0.53439	37.19757

	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	3.47410	0.00057	-0.01455	0.00025	-0.00221	0.01881	-0.00327	-0.00319	0.00297
#2	3.49146	-0.00072	-0.01705	-0.00024	0.00136	0.03150	-0.00426	-0.01064	0.00118
Mean	3.48278	-0.00008	-0.01580	0.00001	-0.00042	0.02516	-0.00377	-0.00691	0.00207
%RSD	0.35245	1151.66936	11.19719	6372.39852	597.38457	35.67148	18.53301	76.19875	61.10894

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	0.05498	0.00166	0.06121	0.01172	-0.00295	-0.00519	-0.03074	-0.00053	0.00716

#2	0.05284	0.00125	0.06126	0.00596	-0.00333	-0.00320	-0.04172	-0.00102	0.00615
Mean	0.05391	0.00145	0.06124	0.00884	-0.00314	-0.00420	-0.03623	-0.00078	0.00666
%RSD	2.79827	19.91350	0.05346	46.09903	8.51111	33.51989	21.42240	44.84188	10.71367

	Zr ppm	Pb calc	Se calc
#1	-0.00093	-0.00139	0.00092
#2	-0.00064	0.00083	-0.00276
Mean	-0.00078	-0.00028	-0.00092
%RSD	26.21451	560.41142	282.53305

Method : Paragon File : 111118A
 SampleId1 : 1111161-4 10X SampleId2 :
 Analysis commenced : 11/18/2011 21:06:42
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:58

[SAMPLE]

Position : TUBE85

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00008	0.02878	-0.00074	0.66783	0.11965	0.00047	0.00067	3.17361	-0.00057
#2	-0.00118	0.03074	-0.00442	0.67219	0.12065	0.00044	0.00172	3.17159	-0.00072
Mean	-0.00063	0.02976	-0.00258	0.67001	0.12015	0.00045	0.00119	3.17260	-0.00064
%RSD	122.70008	4.65547	101.02975	0.46006	0.58908	5.04134	61.65221	0.04516	16.09765

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.00004	0.00024	-0.00248	1.76140	-0.00415	0.07067	0.17136	0.01909	-0.00092
#2	-0.00092	0.00008	-0.00221	1.76273	-0.00989	0.07116	0.17002	0.01928	-0.00231
Mean	-0.00044	0.00016	-0.00234	1.76206	-0.00702	0.07091	0.17069	0.01919	-0.00161
%RSD	154.94004	69.48178	8.13034	0.05321	57.81575	0.48718	0.55629	0.67777	61.05479

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	43.46104	-0.00096	0.08579	-0.00027	-0.00124	0.07275	-0.00270	-0.00799	-0.00005
#2	43.72314	-0.00076	0.07487	-0.00168	-0.00133	0.06957	-0.00222	-0.00622	0.00318
Mean	43.59209	-0.00086	0.08033	-0.00098	-0.00128	0.07116	-0.00246	-0.00711	0.00156
%RSD	0.42515	16.74734	9.61623	101.73092	5.00154	3.15272	13.79377	17.60667	146.30282

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	0.61944	0.00289	0.53379	0.00824	-0.00295	-0.00093	-0.03621	-0.00135	0.00413
#2	0.62360	0.00248	0.53550	-0.00100	-0.00323	0.00348	-0.03209	-0.00131	0.00447
Mean	0.62152	0.00268	0.53465	0.00362	-0.00309	0.00127	-0.03415	-0.00133	0.00430
%RSD	0.47311	10.79208	0.22723	180.56316	6.37227	244.48762	8.52689	2.19454	5.52406

	Zr ppm	Pb calc	Se calc
#1	-0.00102	-0.00092	-0.00270
#2	-0.00043	-0.00145	0.00005

Mean -0.00072 -0.00118 -0.00132UNDGREEN
 %RSD 57.60294 31.69010 146.92790

Method : Paragon File : 111118A
 SampleId1 : 1111172-1 SampleId2 :
 Analysis commenced : 11/18/2011 21:08:39
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:58
 [SAMPLE]

Position : TUBE86

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00041	0.02015	-0.00147	0.09190	0.03740	0.00054	-0.00036	130.92062	-0.00118
#2	-0.00102	0.01874	-0.00126	0.09068	0.03736	0.00049	-0.00228	130.64196	-0.00091
Mean	-0.00071	0.01945	-0.00137	0.09129	0.03738	0.00051	-0.00132	130.78129	-0.00104
%RSD	60.45969	5.13074	10.88159	0.94573	0.07881	6.64049	102.39509	0.15067	18.01235

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00062	-0.00120	-0.00185	-0.01220	3.52828	0.02388	73.34586	0.00815	0.00702
#2	-0.00069	-0.00145	-0.00247	-0.01304	3.52978	0.02382	73.06442	0.00806	0.00686
Mean	-0.00066	-0.00133	-0.00216	-0.01262	3.52903	0.02385	73.20514	0.00811	0.00694
%RSD	7.45348	12.88290	20.39809	4.66394	0.03014	0.15650	0.27185	0.80188	1.66752

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	33.22984	-0.00069	-0.01887	-0.00508	-0.00038	110.79032	-0.00311	-0.00071	-0.00212
#2	33.16279	-0.00123	-0.01955	-0.00453	0.00101	110.43302	-0.00470	-0.00174	0.00052
Mean	33.19632	-0.00096	-0.01921	-0.00481	0.00032	110.61167	-0.00390	-0.00122	-0.00080
%RSD	0.14283	39.93087	2.51142	8.06590	310.41397	0.22841	28.83069	59.10094	234.42747

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	8.00226	0.00002	2.29566	-0.03817	-0.00362	-0.00107	-0.03088	-0.00038	0.05221
#2	7.97557	0.00125	2.29457	-0.03247	-0.00344	-0.00638	-0.04873	-0.00104	0.05322
Mean	7.98892	0.00063	2.29511	-0.03532	-0.00353	-0.00372	-0.03981	-0.00071	0.05271
%RSD	0.23628	136.99574	0.03356	11.40287	3.58830	100.87639	31.70503	65.28860	1.35321

	Zr ppm	Pb calc	Se calc
#1	0.00116	-0.00194	-0.00165
#2	0.00053	-0.00083	-0.00023
Mean	0.00085	-0.00139	-0.00094
%RSD	52.10114	56.47432	106.95830

Method : Paragon File : 111118A
 SampleId1 : 1111172-2 SampleId2 :
 Analysis commenced : 11/18/2011 21:10:36
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:59
 [SAMPLE]

Position : TUBE87

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00014	0.02096	0.00664	0.13754	0.01691	0.00036	-0.00175	14.71232	-0.00072
#2	-0.00070	0.03310	-0.00295	0.13624	0.01712	0.00036	-0.00088	14.66865	-0.00088
Mean	-0.00042	0.02703	0.00184	0.13689	0.01701	0.00036	-0.00131	14.69048	-0.00080
%RSD	94.95180	31.74180	367.58818	0.67023	0.86566	0.33497	46.43576	0.21022	14.48170

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00010	0.00077	-0.00030	0.02835	1.14915	0.00356	6.66636	0.00144	0.00801
#2	-0.00127	0.00037	-0.00066	0.02859	1.14590	0.00355	6.68389	0.00153	0.00727
Mean	-0.00069	0.00057	-0.00048	0.02847	1.14753	0.00355	6.67512	0.00149	0.00764
%RSD	120.44301	49.84906	52.49990	0.59085	0.20021	0.21035	0.18567	4.36864	6.82030

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	78.98796	0.00399	-0.01068	0.00443	0.00022	57.70434	-0.00177	0.00799	0.00275
#2	78.83624	0.00396	-0.00613	-0.00120	0.00294	58.04409	-0.00226	0.00483	0.00454
Mean	78.91210	0.00397	-0.00841	0.00162	0.00158	57.87422	-0.00202	0.00641	0.00364
%RSD	0.13595	0.60351	38.26011	246.08663	121.47112	0.41511	17.24352	34.90633	34.74286

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	7.11519	0.00248	0.78393	-0.00402	-0.00298	0.00565	-0.03091	0.00793	0.01153
#2	7.11456	0.00698	0.78692	-0.00638	-0.00293	-0.00626	-0.04121	0.00793	0.01254
Mean	7.11488	0.00473	0.78542	-0.00520	-0.00295	-0.00031	-0.03606	0.00793	0.01203
%RSD	0.00622	67.36322	0.26864	32.12052	1.18959	2720.65400	20.19345	0.00041	5.92568

	Zr ppm	Pb calc	Se calc
#1	-0.00135	0.00162	0.00449
#2	-0.00146	0.00156	0.00463
Mean	-0.00141	0.00159	0.00456
%RSD	5.67970	2.81876	2.17298

Method : Paragon File : 111118A
 SampleId1 : 1111172-3 SampleId2 :
 Analysis commenced : 11/18/2011 21:12:29
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:59
 [SAMPLE]

Position : TUBE88

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00165	0.01990	0.00221	0.33544	0.02270	0.00045	-0.00331	155.32019	-0.00057
#2	-0.00106	0.01488	-0.00632	0.34033	0.02253	0.00043	-0.00418	154.90957	-0.00082
Mean	-0.00135	0.01739	-0.00205	0.33788	0.02262	0.00044	-0.00375	155.11488	-0.00070
%RSD	30.66671	20.40997	293.79239	1.02302	0.52099	2.66296	16.41589	0.18719	25.12827

ted: 11/21/2011 12:56:09 User: MIKE LUNDGREEN

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00092	-0.00107	-0.00111	0.01063	3.44354	0.03951	97.35429	0.00015	0.00367
#2	-0.00174	-0.00144	-0.00083	0.00980	3.45582	0.03970	97.38509	0.00015	0.00375
Mean	-0.00133	-0.00126	-0.00097	0.01021	3.44968	0.03961	97.36969	0.00015	0.00371
%RSD	43.87190	20.69948	20.73208	5.76399	0.25180	0.32659	0.02237	0.00000	1.56056

	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	130.17222	-0.00035	-0.02433	-0.00087	0.00100	206.76689	-0.00216	0.01063	0.00513
#2	130.18321	0.00067	-0.02092	-0.00171	0.00411	207.30825	-0.00374	0.01302	0.00624
Mean	130.17772	0.00016	-0.02263	-0.00129	0.00255	207.03757	-0.00295	0.01183	0.00568
%RSD	0.00597	454.55112	10.66325	45.81595	85.99586	0.18489	38.04898	14.26313	13.78187

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	15.28185	0.00002	2.83081	-0.04023	-0.00343	-0.00427	-0.03982	0.00081	0.07642
#2	15.28886	0.00289	2.83504	-0.03431	-0.00331	0.00363	-0.05493	0.00048	0.07743
Mean	15.28535	0.00145	2.83293	-0.03727	-0.00337	-0.00032	-0.04738	0.00065	0.07693
%RSD	0.03241	139.51145	0.10561	11.22478	2.50521	1747.12272	22.54199	35.87694	0.92748

	Zr	Pb	Se
	ppm	calc	calc
#1	-0.00085	0.00038	0.00696
#2	-0.00154	0.00217	0.00849
Mean	-0.00120	0.00127	0.00773
%RSD	40.38568	99.51868	14.02710

Method : Paragon File : 111118A
 SampleId1 : 1111172-4 SampleId2 :
 Analysis commenced : 11/18/2011 21:14:24
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:59
 [SAMPLE]

Position : TUBE89

Final concentrations

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00061	0.01137	-0.00010	0.11334	0.02203	0.00036	-0.00383	108.17699	-0.00090
#2	-0.00076	0.00432	-0.00190	0.11128	0.02212	0.00031	0.00016	108.69406	-0.00087
Mean	-0.00069	0.00785	-0.00100	0.11231	0.02207	0.00034	-0.00184	108.43553	-0.00088
%RSD	15.79844	63.55132	126.58458	1.29728	0.26689	9.57526	153.39715	0.33718	2.50786

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00064	-0.00083	-0.00148	0.04512	3.39691	0.02462	57.31907	-0.00067	0.00604
#2	-0.00037	-0.00023	-0.00130	0.04453	3.39942	0.02459	57.39783	-0.00067	0.00621
Mean	-0.00051	-0.00053	-0.00139	0.04483	3.39816	0.02461	57.35845	-0.00067	0.00612
%RSD	38.47177	80.24301	9.47394	0.93828	0.05216	0.09101	0.09709	0.00000	1.89041

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	43.86575	-0.00089	-0.01705	-0.00003	0.00129	99.91978	-0.00691	-0.00034	0.00326
#2	43.79126	-0.00072	-0.02228	-0.00260	-0.00136	100.15037	-0.00325	-0.00426	0.00377
Mean	43.82850	-0.00081	-0.01967	-0.00131	-0.00003	100.03508	-0.00508	-0.00230	0.00352
%RSD	0.12019	14.83448	18.80883	138.15510	5520.14071	0.16300	51.06558	120.37495	10.27597

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	10.64857	0.00002	1.83754	-0.02976	-0.00322	0.00336	-0.03230	0.00008	0.04279
#2	10.66706	0.00084	1.84386	-0.03259	-0.00340	-0.00365	-0.03779	-0.00021	0.04078
Mean	10.65782	0.00043	1.84070	-0.03117	-0.00331	-0.00015	-0.03504	-0.00006	0.04178
%RSD	0.12272	135.03321	0.24290	6.41061	3.82558	3358.42180	11.08193	317.26106	3.41386

	Zr ppm	Pb calc	Se calc
#1	-0.00047	0.00085	0.00206
#2	-0.00024	-0.00177	0.00110
Mean	-0.00035	-0.00046	0.00158
%RSD	46.40545	403.51608	43.09875

Method : Paragon File : 111118A
SampleId1 : 1111172-5 SampleId2 :
Analysis commenced : 11/18/2011 21:16:23
Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:59
[SAMPLE]
Position : TUBE90

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00071	0.00383	0.00590	0.64267	0.02536	0.00047	-0.00002	513.54012	-0.00086
#2	-0.00050	0.00703	-0.00074	0.64374	0.02520	0.00043	0.00172	515.43371	-0.00082
Mean	-0.00061	0.00543	0.00258	0.64320	0.02528	0.00045	0.00085	514.48691	-0.00084
%RSD	24.51561	41.64311	181.79743	0.11769	0.46607	5.36698	143.99831	0.26025	3.81638

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00029	0.10361	0.00052	1.20664	9.82873	0.05959	307.00959	0.00236	0.01144
#2	0.00040	0.10354	0.00007	1.20664	9.82848	0.05962	307.44580	0.00245	0.01161
Mean	0.00005	0.10358	0.00030	1.20664	9.82861	0.05960	307.22770	0.00241	0.01153
%RSD	947.38701	0.04261	108.67035	0.00000	0.00182	0.03754	0.10040	2.70036	1.00437

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	296.48492	0.25725	-0.01159	-0.00071	0.00012	724.60988	-0.00219	0.03434	0.03366
#2	296.62950	0.25912	-0.02592	-0.00368	0.00106	725.75527	-0.00513	0.03914	0.03383
Mean	296.55721	0.25819	-0.01876	-0.00220	0.00059	725.18257	-0.00366	0.03674	0.03374
%RSD	0.03447	0.51138	54.01944	95.49344	113.71247	0.11168	56.70037	9.22872	0.35717

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
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	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	10.83799	-0.00285	13.94381	-0.04633	-0.00479	0.01074	-0.03789	0.00047	0.00750
#2	10.87974	0.00084	13.96937	-0.03560	-0.00484	0.00354	-0.03858	0.00067	0.00817
Mean	10.85886	-0.00100	13.95659	-0.04096	-0.00481	0.00714	-0.03824	0.00057	0.00783
%RSD	0.27180	259.95540	0.12951	18.51378	0.73017	71.36223	1.26962	25.35410	6.06961

	Zr ppm	Pb calc	Se calc
#1	0.00036	-0.00016	0.03389
#2	-0.00012	-0.00052	0.03560
Mean	0.00012	-0.00034	0.03474
%RSD	286.27179	74.42729	3.48142

Method : Paragon File : 111118A
SampleId1 : CCV SampleId2 :
Analysis commenced : 11/18/2011 21:18:47
Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:55:59
[CV]

Position : STD6

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	0.19807	53.01445	0.51735	1.02346	1.02997	0.47426	0.53876	47.83029	0.49993
#2	0.19918	52.89771	0.51522	1.01802	1.02559	0.47568	0.53527	48.09162	0.50068
Mean	0.19862	52.95608	0.51629	1.02074	1.02778	0.47497	0.53702	47.96096	0.50031
%RSD	0.39402	0.15588	0.29065	0.37665	0.30170	0.21081	0.45855	0.38528	0.10601

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.48111	0.96081	1.05549	19.70418	49.44277	0.52771	50.49278	0.96069	0.98041
#2	0.48317	0.96536	1.04894	19.76128	49.20541	0.52468	50.47432	0.96376	0.97778
Mean	0.48214	0.96309	1.05221	19.73273	49.32409	0.52619	50.48355	0.96223	0.97910
%RSD	0.30301	0.33387	0.44013	0.20462	0.34027	0.40699	0.02585	0.22603	0.19037

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	49.38282	0.99233	5.02373	0.98607	0.99229	5.49527	0.49703	1.04882	1.03571
#2	49.21670	0.99519	5.04104	0.99414	0.98784	5.48889	0.49597	1.04970	1.04132
Mean	49.29976	0.99376	5.03239	0.99010	0.99006	5.49208	0.49650	1.04926	1.03851
%RSD	0.23826	0.20369	0.24329	0.57698	0.31750	0.08209	0.15105	0.05893	0.38182

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	5.00188	1.04455	0.51198	0.30413	0.47787	0.53472	4.96751	0.48088	0.93679
#2	5.01258	1.05278	0.50932	0.31370	0.47881	0.52952	4.95578	0.48270	0.94424
Mean	5.00723	1.04867	0.51065	0.30891	0.47834	0.53212	4.96164	0.48179	0.94051
%RSD	0.15104	0.55511	0.36882	2.18941	0.13832	0.69032	0.16721	0.26681	0.56072

	Zr ppm	Pb calc	Se calc
#1	0.00036	-0.00016	0.03389
#2	-0.00012	-0.00052	0.03560
Mean	0.00012	-0.00034	0.03474
%RSD	286.27179	74.42729	3.48142

#1	0.98501	0.99021	1.04007	UNDGREEN
#2	0.98524	0.98994	1.04411	
Mean	0.98512	0.99008	1.04209	
%RSD	0.01625	0.01963	0.27356	

Method : Paragon File : 111118A Printed : 11/21/2011 12:55:59
 SampleId1 : CCB SampleId2 : [CB]
 Analysis commenced : 11/18/2011 21:20:42
 Dilution ratio : 1.00000 to 1.00000 Tray : Position : STD2

Final concentrations

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00093	0.04907	-0.00242	-0.00461	-0.00096	0.00060	-0.00106	-0.02143	-0.00062
#2	-0.00138	0.04489	-0.00084	-0.00538	-0.00100	0.00055	-0.00193	-0.03525	-0.00101
Mean	-0.00115	0.04698	-0.00163	-0.00500	-0.00098	0.00058	-0.00149	-0.02834	-0.00081
%RSD	27.94618	6.28792	68.44558	10.79630	3.00445	6.22870	41.17916	34.47982	34.16306

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00116	-0.00023	-0.00239	0.00183	-0.27486	-0.00199	-0.01931	-0.00040	-0.00002
#2	-0.00095	-0.00141	-0.00192	0.00147	-0.28035	-0.00200	-0.02782	-0.00049	-0.00051
Mean	-0.00106	-0.00082	-0.00215	0.00165	-0.27761	-0.00199	-0.02356	-0.00044	-0.00026
%RSD	13.82894	101.79425	15.36806	15.28662	1.39790	0.49966	25.51834	14.68891	133.06133

	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.14359	-0.00086	-0.00955	-0.00297	0.00065	0.02516	-0.00256	-0.00690	0.00334
#2	-0.15177	-0.00191	-0.01728	-0.00521	0.00131	-0.00340	-0.00464	-0.00590	-0.00118
Mean	-0.14768	-0.00138	-0.01341	-0.00409	0.00098	0.01088	-0.00360	-0.00640	0.00108
%RSD	3.91476	53.68244	40.77313	38.74890	47.50542	185.58188	40.72387	10.98903	295.45633

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.02040	-0.00367	-0.00058	0.00000	-0.00305	-0.00116	-0.03433	-0.00071	-0.00158
#2	-0.02226	0.00289	-0.00105	0.00369	-0.00309	0.00093	-0.05218	-0.00079	-0.00057
Mean	-0.02133	-0.00039	-0.00081	0.00185	-0.00307	-0.00012	-0.04325	-0.00075	-0.00108
%RSD	6.19427	1187.12489	40.14109	141.07117	0.91622	1234.17261	29.18210	7.74911	66.30619

	Zr	Pb	Se
	ppm	calc	calc
#1	0.00030	-0.00055	-0.00007
#2	-0.00005	-0.00086	-0.00275
Mean	0.00012	-0.00071	-0.00141
%RSD	205.09895	30.64260	134.29155

Method : Paragon File : 111118A Printed : 11/21/2011 12:56:00
 SampleId1 : 1111172-6 SampleId2 : [SAMPLE]
 Analysis commenced : 11/18/2011 21:22:39

Dilution ratio : 1.00000 to 1.00000 Tray :

Position : TUBE91

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00102	0.02460	-0.00200	0.63166	0.02670	0.00072	0.00154	497.91926	-0.00093
#2	-0.00045	0.02382	0.00032	0.63456	0.02678	0.00070	0.00293	498.12071	-0.00102
Mean	-0.00073	0.02421	-0.00084	0.63311	0.02674	0.00071	0.00223	498.01998	-0.00097
%RSD	55.07407	2.27562	194.54644	0.32454	0.22033	1.93556	43.96447	0.02860	6.71725

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00036	0.10249	-0.00028	1.21336	9.76680	0.05926	299.54899	0.00402	0.00932
#2	0.00012	0.10327	-0.00047	1.21396	9.73141	0.05889	299.03255	0.00411	0.01054
Mean	-0.00012	0.10288	-0.00038	1.21366	9.74910	0.05908	299.29077	0.00406	0.00993
%RSD	285.57851	0.53735	34.84747	0.03497	0.25668	0.44608	0.12201	1.60034	8.74356

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	288.21122	0.25301	-0.01728	0.00005	0.00107	701.82782	-0.00538	0.03837	0.03494
#2	288.11870	0.25328	-0.00886	-0.00149	-0.00108	703.21012	-0.00281	0.03257	0.03656
Mean	288.16496	0.25315	-0.01307	-0.00072	0.00000	702.51897	-0.00410	0.03547	0.03575
%RSD	0.02270	0.07586	45.52910	150.55395	59495.63247	0.13913	44.41751	11.56476	3.20279

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	10.62448	0.00002	13.71850	-0.03140	-0.00474	-0.00337	-0.05231	0.00026	0.00178
#2	10.60843	-0.00080	13.71259	-0.02860	-0.00442	0.00483	-0.04682	0.00096	-0.00024
Mean	10.61645	-0.00039	13.71554	-0.03000	-0.00458	0.00073	-0.04957	0.00061	0.00077
%RSD	0.10691	149.11815	0.03046	6.59326	4.91145	792.91308	7.83423	80.27042	184.40340

	Zr ppm	Pb calc	Se calc
#1	0.00091	0.00073	0.03608
#2	0.00056	-0.00121	0.03523
Mean	0.00074	-0.00024	0.03566
%RSD	33.33589	568.97469	1.68919

Method : Paragon File : 111118A

Printed : 11/21/2011 12:56:00

SampleId1 : 1111172-10 SampleId2 :

[SAMPLE]

Analysis commenced : 11/18/2011 21:24:32

Dilution ratio : 1.00000 to 1.00000 Tray :

Position : TUBE92

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00091	0.04062	-0.00347	0.12311	0.04849	0.00074	-0.00175	65.70711	-0.00088
#2	-0.00024	0.03887	-0.00400	0.12288	0.04849	0.00072	0.00033	65.54966	-0.00030

Mean	-0.00058	0.03975	-0.00374	0.12300	0.04849	0.00073	-0.00071	65.62838	-0.00059
%RSD	82.58125	3.11799	9.96003	0.13163	0.00000	1.51471	206.49464	0.16964	69.27845

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00081	0.00354	-0.00248	0.05892	2.52329	0.01987	48.79103	-0.00021	0.00694
#2	-0.00081	0.00379	-0.00193	0.05940	2.51628	0.01986	48.72281	-0.00021	0.00784
Mean	-0.00081	0.00366	-0.00221	0.05916	2.51979	0.01987	48.75692	-0.00021	0.00739
%RSD	0.03453	4.81187	17.40059	0.56880	0.19674	0.02506	0.09894	0.00000	8.61281

	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	50.72658	0.03142	-0.01364	-0.00149	0.00199	60.48503	-0.00279	-0.00817	0.00071
#2	50.63875	0.03390	-0.02024	-0.00080	-0.00067	60.51173	-0.00462	0.00243	0.00326
Mean	50.68266	0.03266	-0.01694	-0.00114	0.00066	60.49838	-0.00370	-0.00287	0.00199
%RSD	0.12254	5.35973	27.53760	42.23655	286.44242	0.03121	34.96430	261.10556	90.97127

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	14.42990	-0.00039	1.58426	-0.01578	-0.00313	-0.00665	-0.03848	0.00110	-0.00192
#2	14.43597	0.00289	1.58232	-0.02407	-0.00332	-0.00404	-0.03505	0.00155	-0.00024
Mean	14.43293	0.00125	1.58329	-0.01993	-0.00322	-0.00535	-0.03677	0.00133	-0.00108
%RSD	0.02973	185.64492	0.08637	29.39377	4.14398	34.43158	6.60091	23.93262	110.51054

	Zr	Pb	Se
	ppm	calc	calc
#1	-0.00209	0.00083	-0.00225
#2	-0.00140	-0.00072	0.00299
Mean	-0.00174	0.00006	0.00037
%RSD	27.84108	1893.85982	1003.02823

Method : Paragon File : 111118A
 SampleId1 : 1111104-1 500X SampleId2 :
 Analysis commenced : 11/18/2011 21:26:24
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:56:00
 [SAMPLE]
 Position : TUBE93

Final concentrations

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00159	0.03452	0.00053	0.09732	0.00491	0.00067	-0.00280	0.64547	-0.00094
#2	-0.00101	0.04162	-0.00390	0.09709	0.00495	0.00070	-0.00280	0.62126	-0.00084
Mean	-0.00130	0.03807	-0.00168	0.09720	0.00493	0.00068	-0.00280	0.63336	-0.00089
%RSD	31.49546	13.18842	185.66062	0.16654	0.59691	3.08951	0.07969	2.70309	8.48523

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00156	-0.00189	-0.00247	0.03204	-0.11569	0.02393	0.12750	0.00052	-0.00288
#2	-0.00184	-0.00223	-0.00256	0.03204	-0.12617	0.02402	0.10735	0.00052	-0.00182
Mean	-0.00170	-0.00206	-0.00251	0.03204	-0.12093	0.02397	0.11742	0.00052	-0.00235

%RSD	11.41273	11.69793	2.36216	0.00000	6.12758	0.26989	12.12912	0.00000	32.04185
	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	ppm								
#1	16.61785	-0.00194	-0.02001	-0.00456	0.00293	0.17111	-0.00416	-0.00515	-0.00381
#2	16.65905	-0.00269	-0.02934	-0.00513	0.00277	0.15842	-0.00354	-0.01133	-0.00177
Mean	16.63845	-0.00232	-0.02467	-0.00484	0.00285	0.16476	-0.00385	-0.00824	-0.00279
%RSD	0.17510	22.76531	26.72762	8.34170	4.02502	5.44710	11.47449	53.11000	51.83227
	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm								
#1	0.02720	-0.00121	0.27374	0.01243	-0.00298	0.00024	-0.04533	-0.00168	0.00010
#2	0.02823	-0.00326	0.27319	0.00468	-0.00329	-0.00116	-0.05426	-0.00115	-0.00192
Mean	0.02772	-0.00223	0.27347	0.00856	-0.00313	-0.00046	-0.04979	-0.00142	-0.00091
%RSD	2.62284	64.82582	0.14127	64.06390	6.95429	215.93979	12.67397	26.55104	157.17767
	Zr	Pb	Se						
	ppm	calc	calc						
#1	-0.00178	0.00044	-0.00426						
#2	-0.00133	0.00014	-0.00495						
Mean	-0.00156	0.00029	-0.00460						
%RSD	20.70026	72.64250	10.70769						

Method : Paragon

File : 111118A

Printed : 11/21/2011 12:56:00

SampleId1 : 1111232-1 5X

SampleId2 :

[SAMPLE]

Analysis commenced : 11/18/2011 21:28:15

Dilution ratio : 1.00000 to 1.00000 Tray :

Position : TUBE94

Final concentrations

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	ppm								
#1	-0.00034	0.04140	-0.00569	0.05680	-0.00125	0.00068	-0.00141	-0.05310	-0.00090
#2	-0.00070	0.03808	-0.00516	0.05733	-0.00133	0.00067	-0.00054	-0.05022	-0.00062
Mean	-0.00052	0.03974	-0.00542	0.05707	-0.00129	0.00067	-0.00098	-0.05166	-0.00076
%RSD	49.37681	5.91970	6.86534	0.66180	4.55677	1.02763	62.74898	3.94056	26.37466
	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm								
#1	-0.00061	-0.00120	-0.00193	0.00789	-0.30080	-0.00191	-0.04885	-0.00104	-0.00124
#2	-0.00102	-0.00132	-0.00201	0.00718	-0.30504	-0.00192	-0.04840	-0.00095	-0.00247
Mean	-0.00082	-0.00126	-0.00197	0.00754	-0.30292	-0.00191	-0.04863	-0.00099	-0.00186
%RSD	35.78384	6.92726	3.14788	6.69448	0.98988	0.65043	0.65081	6.53884	46.74858
	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	ppm								
#1	41.53473	-0.00082	-0.01955	0.00188	0.00169	1.74286	-0.00318	-0.00224	-0.00177
#2	41.55098	-0.00127	-0.01455	-0.00352	0.00071	1.73015	-0.00233	0.00015	0.00104
Mean	41.54285	-0.00105	-0.01705	-0.00082	0.00120	1.73650	-0.00275	-0.00104	-0.00037
%RSD	0.02765	29.81323	20.75123	466.68802	58.13443	0.51754	21.78674	162.14680	542.44271

ted: 11/21/2011 12:56:09 User: MIKE LUNDGREEN

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	1.40227	0.00166	-0.00098	0.00806	-0.00295	0.00263	-0.04532	-0.00075	0.00178
#2	1.39481	0.00084	-0.00113	0.00776	-0.00313	-0.00117	-0.04943	-0.00111	0.00178
Mean	1.39854	0.00125	-0.00105	0.00791	-0.00304	0.00073	-0.04737	-0.00093	0.00178
%RSD	0.37736	46.40451	10.10568	2.64498	4.16346	368.13675	6.14756	27.99927	0.00000

	Zr ppm	Pb calc	Se calc
#1	-0.00127	0.00176	-0.00193
#2	-0.00133	-0.00070	0.00074
Mean	-0.00130	0.00053	-0.00059
%RSD	3.20009	330.05056	319.14156

Method : Paragon

File : 111118A

Printed : 11/21/2011 12:56:00

SampleId1 : 1111235-1 5X

SampleId2 :

[SAMPLE]

Analysis commenced : 11/18/2011 21:30:06

Dilution ratio : 1.00000 to 1.00000 Tray :

Position : TUBE95

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00096	0.03263	-0.00369	0.13967	0.00720	0.00058	-0.00314	4.61673	-0.00103
#2	-0.00087	0.03080	-0.00495	0.14181	0.00725	0.00055	-0.00192	4.63995	-0.00092
Mean	-0.00092	0.03171	-0.00432	0.14074	0.00722	0.00056	-0.00253	4.62834	-0.00098
%RSD	7.06911	4.06249	20.69705	1.07369	0.40766	3.85663	34.04253	0.35469	7.54500

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00142	-0.00167	-0.00211	0.03537	0.06099	0.00091	2.19989	0.00852	0.00048
#2	-0.00115	-0.00124	-0.00185	0.03620	0.06473	0.00093	2.19496	0.00870	0.00048
Mean	-0.00128	-0.00145	-0.00198	0.03579	0.06286	0.00092	2.19743	0.00861	0.00048
%RSD	15.10983	20.94784	9.27579	1.64534	4.21131	1.61980	0.15864	1.50962	0.00000

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	40.50412	-0.00113	-0.00932	-0.00323	0.00006	4.03930	-0.00267	0.00053	0.00053
#2	40.70418	-0.00028	-0.00841	-0.00363	0.00077	4.03612	-0.00047	-0.00551	0.00036
Mean	40.60415	-0.00071	-0.00886	-0.00343	0.00042	4.03771	-0.00157	-0.00249	0.00045
%RSD	0.34839	84.85337	7.25921	8.13446	121.00033	0.05576	99.25109	171.53666	26.88117

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	0.85505	-0.00449	0.03067	0.00364	-0.00324	-0.00466	-0.04671	-0.00144	0.02464
#2	0.86526	-0.00572	0.03065	0.00569	-0.00290	0.00005	-0.02954	-0.00123	0.02498
Mean	0.86016	-0.00510	0.03066	0.00466	-0.00307	-0.00230	-0.03813	-0.00133	0.02481
%RSD	0.83960	17.03971	0.05335	31.01799	7.78789	144.77887	31.83164	10.85249	0.95824

	Zr ppm	Pb calc	SeUNDGREEN calc
#1	-0.00102	-0.00104	0.00053
#2	-0.00086	-0.00069	-0.00159
Mean	-0.00094	-0.00086	-0.00053
%RSD	11.84869	28.27517	283.43901

Method : Paragon File : 111118A Printed : 11/21/2011 12:56:01
SampleId1 : 1111238-1 5X SampleId2 : [SAMPLE]
Analysis commenced : 11/18/2011 21:31:59
Dilution ratio : 1.00000 to 1.00000 Tray : Position : TUBE96

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00066	0.02360	-0.00200	-0.00652	0.00262	0.00057	0.00033	60.82785	-0.00081
#2	-0.00004	0.02476	-0.00253	-0.00553	0.00266	0.00048	-0.00036	61.11409	-0.00050
Mean	-0.00035	0.02418	-0.00226	-0.00603	0.00264	0.00053	-0.00002	60.97097	-0.00066
%RSD	124.64425	3.39862	16.44694	11.63659	1.11419	12.37358	2579.10807	0.33196	33.33335

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00012	-0.00148	-0.00211	-0.01755	62.98825	-0.00194	22.44879	-0.00058	-0.00116
#2	-0.00040	-0.00042	-0.00157	-0.01720	62.37073	-0.00191	22.40976	-0.00049	-0.00149
Mean	-0.00026	-0.00095	-0.00184	-0.01738	62.67949	-0.00193	22.42928	-0.00053	-0.00133
%RSD	75.24708	78.96923	20.66534	1.45164	0.69664	1.29254	0.12303	12.16237	17.47177

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	296.12141	-0.00164	-0.00659	-0.00244	0.00186	264.43721	-0.00538	0.00836	-0.00178
#2	296.39484	-0.00103	-0.00977	0.00132	-0.00322	264.19127	-0.00086	0.00156	0.00061
Mean	296.25812	-0.00133	-0.00818	-0.00056	-0.00068	264.31424	-0.00312	0.00496	-0.00058
%RSD	0.06526	32.35915	27.52680	473.53835	527.47111	0.06580	102.42644	97.00584	288.48514

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	0.01129	0.00330	0.02336	-0.01527	-0.00343	0.00202	-0.04049	-0.00120	-0.00024
#2	0.01254	0.00043	0.02305	-0.01545	-0.00352	-0.00757	-0.03157	-0.00051	0.00145
Mean	0.01192	0.00186	0.02320	-0.01536	-0.00347	-0.00277	-0.03603	-0.00085	0.00061
%RSD	7.40240	108.82879	0.95148	0.80697	1.82241	244.63074	17.51540	57.64405	196.33808

	Zr ppm	Pb calc	Se calc
#1	0.00040	0.00043	0.00160
#2	0.00067	-0.00171	0.00092
Mean	0.00054	-0.00064	0.00126
%RSD	36.26662	235.58188	37.84805

Method : Paragon File : 111118A Printed : 11/21/2011 12:56:01

SampleId1 : 1111238-3 5X SampleId2 :
 Analysis commenced : 11/18/2011 21:33:51
 Dilution ratio : 1.00000 to 1.00000 Tray :

[SAMPLE]

Position : TUBE97

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00097	0.02168	-0.00263	-0.00721	0.00166	0.00050	-0.00089	47.76040	-0.00081
#2	-0.00066	0.01726	-0.00158	-0.00606	0.00175	0.00044	-0.00210	47.83651	-0.00064
Mean	-0.00082	0.01947	-0.00211	-0.00664	0.00171	0.00047	-0.00149	47.79845	-0.00072
%RSD	26.65931	16.05897	35.36144	12.19209	3.45230	8.34145	57.35206	0.11259	16.08768

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00074	-0.00142	-0.00202	-0.01732	48.60568	-0.00197	18.50612	-0.00076	-0.00198
#2	-0.00129	-0.00183	-0.00166	-0.01803	48.67041	-0.00198	18.49208	-0.00076	-0.00263
Mean	-0.00102	-0.00162	-0.00184	-0.01767	48.63804	-0.00197	18.49910	-0.00076	-0.00231
%RSD	38.25014	17.91055	13.79401	2.85444	0.09410	0.12614	0.05364	0.00000	20.06781

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	225.92814	-0.00222	-0.00932	-0.00525	-0.00042	195.69613	-0.00379	0.00395	-0.00041
#2	226.69689	-0.00184	-0.01273	-0.00242	0.00168	195.58939	-0.00514	-0.00867	-0.00152
Mean	226.31251	-0.00203	-0.01102	-0.00384	0.00063	195.64276	-0.00447	-0.00236	-0.00097
%RSD	0.24019	12.99970	21.88561	52.25006	234.68634	0.03858	21.34341	377.90588	80.91499

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	0.00902	-0.00285	0.01760	-0.01625	-0.00325	0.00112	-0.04324	-0.00091	0.00010
#2	0.00952	0.00084	0.01758	-0.01713	-0.00336	-0.00298	-0.03706	-0.00112	0.00077
Mean	0.00927	-0.00100	0.01759	-0.01669	-0.00330	-0.00093	-0.04015	-0.00102	0.00044
%RSD	3.76134	259.50551	0.09296	3.71051	2.34137	312.85347	10.88312	14.23308	108.72443

	Zr ppm	Pb calc	Se calc
#1	0.00028	-0.00203	0.00104
#2	0.00045	0.00032	-0.00390
Mean	0.00036	-0.00086	-0.00143
%RSD	33.91466	193.59456	243.95150

Method : Paragon File : 111118A
 SampleId1 : 1111238-3L 25X SampleId2 :
 Analysis commenced : 11/18/2011 21:35:43
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:56:01

[SAMPLE]

Position : TUBE98

Final concentrations

Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
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#1	-0.00061	0.01953	-0.00010	-0.00622	-0.00088	0.00034	-0.00418	9.57093	-0.00098
#2	-0.00101	0.01412	-0.00021	-0.00698	-0.00092	0.00029	-0.00072	9.53757	-0.00100
Mean	-0.00081	0.01682	-0.00016	-0.00660	-0.00090	0.00031	-0.00245	9.55425	-0.00099
%RSD	35.64663	22.76064	47.25830	8.17505	3.28348	11.88002	100.00017	0.24688	1.31869

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00116	-0.00161	-0.00230	-0.01886	7.46408	-0.00212	3.74865	-0.00104	-0.00165
#2	-0.00171	-0.00176	-0.00247	-0.01922	7.40889	-0.00211	3.72533	-0.00104	-0.00034
Mean	-0.00143	-0.00168	-0.00238	-0.01904	7.43648	-0.00212	3.73699	-0.00104	-0.00100
%RSD	27.16505	6.29555	5.09714	1.32471	0.52480	0.35263	0.44140	0.00000	92.82275

	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	49.40433	-0.00106	-0.01046	-0.00376	0.00100	39.18676	-0.00342	-0.00072	-0.00152
#2	49.05770	-0.00110	-0.00727	-0.00323	0.00212	39.06538	-0.00378	-0.00022	-0.00425
Mean	49.23102	-0.00108	-0.00886	-0.00349	0.00156	39.12607	-0.00360	-0.00047	-0.00288
%RSD	0.49787	2.22128	25.40725	10.73437	51.17959	0.21936	6.97090	74.25500	66.81177

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.01888	0.00207	0.00204	0.00046	-0.00327	-0.00088	-0.03775	-0.00055	-0.00124
#2	-0.01848	-0.00285	0.00206	-0.00109	-0.00315	-0.00208	-0.05079	-0.00169	-0.00091
Mean	-0.01868	-0.00039	0.00205	-0.00032	-0.00321	-0.00148	-0.04427	-0.00112	-0.00108
%RSD	1.52772	890.70603	0.79658	345.97602	2.62942	57.71153	20.83595	72.35979	22.10204

	Zr	Pb	Se
	ppm	calc	calc
#1	-0.00083	-0.00059	-0.00125
#2	-0.00088	0.00034	-0.00291
Mean	-0.00086	-0.00012	-0.00208
%RSD	4.90944	536.48587	56.18843

Method : Paragon File : 111118A
 SampleId1 : 1111238-3A 5X SampleId2 :
 Analysis commenced : 11/18/2011 21:37:35
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:56:01

[SAMPLE]

Position : TUBE99

Final concentrations

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00113	0.01881	-0.00179	-0.00660	0.00171	0.00041	-0.00280	84.01734	-0.00100
#2	-0.00103	0.01904	-0.00232	-0.00599	0.00175	0.00038	0.00154	83.58769	-0.00106
Mean	-0.00108	0.01892	-0.00205	-0.00629	0.00173	0.00039	-0.00063	83.80252	-0.00103
%RSD	6.34404	0.85558	18.13415	6.85716	1.70534	6.39760	489.52055	0.36253	3.68678

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00060	-0.00116	-0.00238	-0.01625	92.27209	0.59473	55.06083	0.00052	-0.00165

#2	-0.00060	-0.00092	-0.00139	-0.01589	91.64952	0.59016	54.80778	0.00061	-0.00190
Mean	-0.00060	-0.00104	-0.00188	-0.01607	91.96081	0.59245	54.93430	0.00057	-0.00178
%RSD	0.00192	16.74754	37.32144	1.56982	0.47870	0.54499	0.32572	11.43056	9.78080

	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	253.47380	-0.00110	-0.01455	-0.00229	0.00173	195.85440	-0.00208	-0.00804	-0.00169
#2	251.14317	-0.00093	-0.00795	0.00015	-0.00128	195.75134	-0.00429	-0.00577	0.00146
Mean	252.30849	-0.00101	-0.01125	-0.00107	0.00023	195.80287	-0.00318	-0.00690	-0.00012
%RSD	0.65317	11.85099	41.45680	161.68408	937.13003	0.03722	49.07629	23.32462	1925.92745

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	0.00651	-0.00326	0.01760	-0.03031	-0.00298	-0.00038	-0.04736	-0.00087	0.00010
#2	0.01015	-0.00367	0.01753	-0.03268	-0.00296	-0.00097	-0.03912	-0.00067	0.00145
Mean	0.00833	-0.00346	0.01757	-0.03149	-0.00297	-0.00068	-0.04324	-0.00077	0.00077
%RSD	30.96555	8.36518	0.27926	5.32385	0.47345	62.17451	13.47220	18.76309	122.93601

	Zr	Pb	Se
	ppm	calc	calc
#1	0.00102	0.00040	-0.00381
#2	0.00147	-0.00080	-0.00095
Mean	0.00124	-0.00020	-0.00238
%RSD	25.82236	416.28181	85.12165

Method : Paragon File : 111118A
 SampleId1 : 1111106-22 5X SampleId2 :
 Analysis commenced : 11/18/2011 21:39:27
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:56:01
 [SAMPLE]

Position : TUBE100

Final concentrations

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00128	0.01168	0.00284	0.07717	0.00308	0.00026	-0.00505	7.90212	-0.00037
#2	-0.00056	0.01018	-0.00053	0.07732	0.00325	0.00025	-0.00175	7.93247	-0.00084
Mean	-0.00092	0.01093	0.00116	0.07725	0.00316	0.00025	-0.00340	7.91729	-0.00060
%RSD	55.14083	9.70798	205.63188	0.13970	3.72341	3.96298	68.66219	0.27105	55.53071

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00102	-0.00133	-0.00193	-0.01815	-0.11469	0.00501	3.24270	-0.00104	0.01112
#2	-0.00053	-0.00143	-0.00149	-0.01803	-0.10521	0.00497	3.24360	-0.00104	0.01063
Mean	-0.00077	-0.00138	-0.00171	-0.01809	-0.10995	0.00499	3.24315	-0.00104	0.01087
%RSD	43.95953	5.17100	18.39586	0.46479	6.09766	0.59839	0.01956	0.00000	3.19460

	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	ppm								
#1	39.54036	-0.00157	-0.01592	-0.00375	0.00109	24.04428	-0.00478	-0.00185	-0.00033
#2	39.43082	-0.00096	-0.01341	-0.00184	-0.00163	24.03132	-0.00320	-0.00676	0.00325

Mean	39.48559	-0.00127	-0.01466	-0.00280	-0.00027	24.03780	-0.00399	-0.00431	0.00146
%RSD	0.19617	34.09269	12.06573	48.29055	715.79540	0.03812	28.15494	80.60024	173.31797

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	2.93830	-0.00203	0.12158	-0.00125	-0.00325	0.00343	-0.03706	-0.00022	-0.00024
#2	2.94754	-0.00080	0.12145	-0.00087	-0.00304	-0.00077	-0.02470	0.00048	0.00010
Mean	2.94292	-0.00141	0.12152	-0.00106	-0.00314	0.00133	-0.03088	0.00013	-0.00007
%RSD	0.22197	61.42374	0.07417	25.08879	4.69607	223.17235	28.29697	382.70776	354.85472

	Zr	Pb	Se
	ppm	calc	calc
#1	-0.00104	-0.00052	-0.00084
#2	-0.00058	-0.00170	-0.00009
Mean	-0.00081	-0.00111	-0.00046
%RSD	40.38059	74.82546	115.23080

Method : Paragon

File : 111118A

Printed : 11/21/2011 12:56:01

SampleId1 : CCV

SampleId2 :

[CV]

Analysis commenced : 11/18/2011 21:41:59

Dilution ratio : 1.00000 to 1.00000 Tray :

Position : STD6

Final concentrations

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	0.19819	53.09308	0.52212	1.02767	1.03563	0.47510	0.54449	47.66473	0.50269
#2	0.19720	52.84056	0.51851	1.01718	1.03411	0.47551	0.54345	47.59920	0.49822
Mean	0.19769	52.96682	0.52032	1.02242	1.03487	0.47531	0.54397	47.63196	0.50045
%RSD	0.35303	0.33711	0.49031	0.72559	0.10373	0.06103	0.13614	0.09728	0.63098

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	0.48097	0.96162	1.06076	19.72892	49.69985	0.53037	50.51908	0.96125	0.97424
#2	0.48076	0.96109	1.05802	19.72185	49.50252	0.52787	50.35851	0.96069	0.98157
Mean	0.48087	0.96136	1.05939	19.72539	49.60118	0.52912	50.43880	0.96097	0.97790
%RSD	0.03072	0.03938	0.18233	0.02534	0.28131	0.33323	0.22510	0.04115	0.53012

	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	49.46412	0.99458	4.95987	0.99134	0.98899	5.26257	0.50267	1.06309	1.03451
#2	49.17594	0.99611	4.98021	0.98666	0.98665	5.29126	0.50287	1.05927	1.03890
Mean	49.32003	0.99535	4.97004	0.98900	0.98782	5.27691	0.50277	1.06118	1.03670
%RSD	0.41317	0.10895	0.28952	0.33484	0.16773	0.38439	0.02696	0.25438	0.29938

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm								
#1	4.99521	1.04949	0.50914	0.30971	0.47910	0.52612	4.98675	0.48232	0.93306
#2	4.98443	1.05649	0.50849	0.31107	0.47881	0.53904	4.98538	0.48405	0.93882
Mean	4.98982	1.05299	0.50882	0.31039	0.47895	0.53258	4.98607	0.48318	0.93594

%RSD	0.15282	0.47000	0.09091	0.30992	0.04262	1.71585	0.01944	0.25220	0.43538
	Zr	Pb	Se						
	ppm	calc	calc						
#1	0.99153	0.98977	1.04402						
#2	0.98979	0.98665	1.04568						
Mean	0.99066	0.98821	1.04485						
%RSD	0.12403	0.22342	0.11209						

Method : Paragon

File : 111118A

Printed : 11/21/2011 12:56:02

SampleId1 : CCB

SampleId2 :

[CB]

Analysis commenced : 11/18/2011 21:43:56

Dilution ratio : 1.00000 to 1.00000 Tray :

Position : STD2

Final concentrations

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00045	0.03734	-0.00379	-0.00584	-0.00133	0.00055	-0.00696	-0.08390	-0.00084
#2	-0.00029	0.03332	-0.00274	-0.00637	-0.00133	0.00052	0.00033	-0.08362	-0.00079
Mean	-0.00037	0.03533	-0.00326	-0.00610	-0.00133	0.00054	-0.00332	-0.08376	-0.00081
%RSD	29.17248	8.04285	22.81212	6.18753	0.00000	3.11385	155.32831	0.24303	4.36486

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm								
#1	-0.00137	-0.00148	-0.00238	-0.01304	-0.31552	-0.00214	-0.06138	-0.00095	-0.00026
#2	-0.00130	-0.00133	-0.00239	-0.01339	-0.32425	-0.00217	-0.06272	-0.00095	-0.00190
Mean	-0.00133	-0.00140	-0.00238	-0.01321	-0.31989	-0.00216	-0.06205	-0.00095	-0.00108
%RSD	3.68091	7.79300	0.09490	1.90889	1.92987	0.69317	1.52997	0.00000	107.23077

	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	ppm	ppm							
#1	-0.17894	-0.00167	-0.01410	0.00006	-0.00145	-0.04781	-0.00121	-0.00299	0.00265
#2	-0.17961	-0.00266	-0.01478	-0.00332	0.00031	-0.04464	-0.00404	-0.00741	0.00248
Mean	-0.17928	-0.00216	-0.01444	-0.00163	-0.00057	-0.04623	-0.00262	-0.00520	0.00257
%RSD	0.26140	32.12434	3.34251	146.97052	218.55447	4.85280	76.37884	60.00667	4.69471

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.02607	0.00289	-0.00190	0.00663	-0.00310	-0.00118	-0.04255	-0.00128	-0.00124
#2	-0.02052	-0.00612	-0.00191	0.00266	-0.00333	-0.00227	-0.03844	-0.00132	0.00010
Mean	-0.02329	-0.00162	-0.00191	0.00464	-0.00321	-0.00172	-0.04050	-0.00130	-0.00057
%RSD	16.82184	393.56193	0.42864	60.36392	5.03192	45.02381	7.19322	2.22485	166.45002

	Zr	Pb	Se
	ppm	calc	calc
#1	-0.00053	-0.00094	0.00077
#2	-0.00031	-0.00090	-0.00081
Mean	-0.00042	-0.00092	-0.00002
%RSD	38.10804	3.32299	6081.61934

ted: 11/21/2011 12:56:09 User: MIKE LUNDGREEN
 Method : Paragon File : 111118A
 SampleId1 : 1111106-22D 5X SampleId2 :
 Analysis commenced : 11/18/2011 21:45:54
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:56:02
 [SAMPLE]
 Position : TUBE101

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00030	0.05638	0.00147	0.07702	0.00371	0.00082	-0.00054	7.95581	-0.00070
#2	0.00017	0.04727	-0.00548	0.07755	0.00341	0.00067	-0.00192	7.95552	-0.00052
Mean	-0.00007	0.05183	-0.00200	0.07729	0.00356	0.00075	-0.00123	7.95567	-0.00061
%RSD	495.43751	12.42871	245.68226	0.48869	5.79169	13.52888	79.65204	0.00259	21.01684
	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00053	-0.00086	-0.00166	-0.00721	-0.11968	0.00528	3.28037	-0.00040	0.01103
#2	-0.00053	-0.00120	-0.00157	-0.01208	-0.12392	0.00515	3.26692	-0.00058	0.01095
Mean	-0.00053	-0.00103	-0.00162	-0.00965	-0.12180	0.00522	3.27364	-0.00049	0.01099
%RSD	0.07908	23.79146	3.85618	35.73633	2.46243	1.71765	0.29061	26.61355	0.52649
	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	39.83265	-0.00011	-0.00773	-0.00016	0.00010	23.94063	-0.00540	0.00219	0.00044
#2	39.62928	-0.00015	-0.00773	0.00118	0.00122	23.98921	-0.00258	-0.00261	-0.00041
Mean	39.73097	-0.00013	-0.00773	0.00051	0.00066	23.96492	-0.00399	-0.00021	0.00001
%RSD	0.36193	18.44704	0.00000	186.02825	119.26492	0.14336	49.93036	1613.91860	4573.29370
	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	2.95110	-0.00572	0.12385	0.00348	-0.00304	-0.00297	-0.03432	-0.00018	0.00111
#2	2.94361	0.00166	0.12343	-0.00003	-0.00295	-0.00627	-0.03088	0.00027	0.00077
Mean	2.94736	-0.00203	0.12364	0.00173	-0.00299	-0.00462	-0.03260	0.00005	0.00094
%RSD	0.17967	256.95692	0.23858	143.53922	2.11283	50.52621	7.45232	657.17297	25.24731
	Zr ppm	Pb calc	Se calc						
#1	0.00041	0.00002	0.00102						
#2	0.00069	0.00120	-0.00114						
Mean	0.00055	0.00061	-0.00006						
%RSD	35.88061	137.86247	2504.56830						

Method : Paragon File : 111118A
 SampleId1 : 1111106-22L 25X SampleId2 :
 Analysis commenced : 11/18/2011 21:47:46
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:56:02
 [SAMPLE]
 Position : TUBE102

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00050	0.03754	-0.00200	0.01057	-0.00033	0.00064	0.00050	1.57261	-0.00070
#2	-0.00093	0.04371	-0.00137	0.01072	-0.00029	0.00068	-0.00088	1.57146	-0.00082
Mean	-0.00072	0.04062	-0.00168	0.01064	-0.00031	0.00066	-0.00019	1.57203	-0.00076
%RSD	41.75344	10.74623	26.52239	1.01375	9.38404	4.69618	510.28791	0.05194	11.13251

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00047	-0.00111	-0.00239	-0.01530	-0.25116	-0.00093	0.61859	-0.00086	0.00211
#2	-0.00095	-0.00089	-0.00248	-0.01553	-0.25939	-0.00095	0.61546	-0.00086	0.00064
Mean	-0.00071	-0.00100	-0.00244	-0.01541	-0.25528	-0.00094	0.61703	-0.00086	0.00138
%RSD	47.93638	15.26524	2.79248	1.09096	2.28031	1.58855	0.35918	0.00000	75.70979

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	7.43989	0.00006	-0.00750	-0.00020	0.00070	4.85785	-0.00168	0.00484	-0.00144
#2	7.50286	-0.00018	-0.00386	-0.00281	0.00224	4.91521	-0.00182	-0.00323	-0.00220
Mean	7.47138	-0.00006	-0.00568	-0.00150	0.00147	4.88653	-0.00175	0.00080	-0.00182
%RSD	0.59605	270.01020	45.32251	123.08409	74.22084	0.82992	5.55015	712.34180	29.80071

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	0.57952	-0.00285	0.02352	0.00276	-0.00311	-0.00707	-0.03500	-0.00059	0.00010
#2	0.58304	-0.00408	0.02363	0.00670	-0.00303	0.00233	-0.02814	-0.00030	-0.00259
Mean	0.58128	-0.00346	0.02357	0.00473	-0.00307	-0.00237	-0.03157	-0.00044	-0.00124
%RSD	0.42839	25.09685	0.31218	58.90724	1.83244	280.53487	15.37821	45.62819	152.91840

	Zr ppm	Pb calc	Se calc
#1	-0.00053	0.00040	0.00065
#2	-0.00048	0.00055	-0.00255
Mean	-0.00050	0.00048	-0.00095
%RSD	7.15500	22.92232	238.86112

Method : Paragon File : 111118A
SampleId1 : 1111106-22MS 5X SampleId2 :
Analysis commenced : 11/18/2011 21:49:40
Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:56:02
[SAMPLE]
Position : TUBE103

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	0.01667	0.46019	0.40327	0.17952	0.41291	0.01052	-0.00595	15.29661	0.00839
#2	0.01786	0.45938	0.40740	0.17845	0.41408	0.01046	-0.00178	15.31877	0.00892
Mean	0.01727	0.45978	0.40533	0.17898	0.41350	0.01049	-0.00386	15.30769	0.00866
%RSD	4.85010	0.12413	0.72076	0.42221	0.20041	0.36177	76.33644	0.10234	4.29588

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
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	ppm	ppm	ppm						
#1	0.09511	0.03665	0.04971	0.17879	7.61531	0.10142	10.78242	0.09546	0.20491
#2	0.09621	0.03736	0.05106	0.17855	7.63296	0.10162	10.83739	0.09564	0.20737
Mean	0.09566	0.03700	0.05038	0.17867	7.62413	0.10152	10.80990	0.09555	0.20614
%RSD	0.81501	1.35747	1.89039	0.09426	0.16366	0.13944	0.35957	0.13625	0.84343

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	47.82292	0.09990	-0.01773	0.09525	0.10164	24.03132	0.09687	0.42061	0.41392
#2	47.97531	0.10146	-0.01455	0.09611	0.09818	24.19654	0.09357	0.42556	0.41589
Mean	47.89911	0.10068	-0.01614	0.09568	0.09991	24.11393	0.09522	0.42309	0.41491
%RSD	0.22497	1.09596	13.94972	0.63774	2.44473	0.48447	2.45077	0.82807	0.33528

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	3.36166	0.10234	0.22524	-0.00296	0.09163	0.42344	-0.05573	0.09765	0.09290
#2	3.38334	0.10029	0.22567	-0.00214	0.09209	0.42636	-0.03445	0.09880	0.09358
Mean	3.37250	0.10131	0.22546	-0.00255	0.09186	0.42490	-0.04509	0.09822	0.09324
%RSD	0.45459	1.43050	0.13476	22.88232	0.35206	0.48546	33.37724	0.82507	0.51021

	Zr ppm	Pb calc	Se calc
#1	-0.00001	0.09951	0.41615
#2	0.00026	0.09749	0.41911
Mean	0.00013	0.09850	0.41763
%RSD	152.26920	1.44770	0.50153

Method : Paragon File : 111118A
 SampleId1 : 1111106-22MSD 5X SampleId2 :
 Analysis commenced : 11/18/2011 21:51:34
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:56:02
 [SAMPLE]
 Position : TUBE104

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	0.01822	0.45267	0.40549	0.18112	0.41053	0.01042	0.00082	15.49308	0.00867
#2	0.01754	0.45341	0.40348	0.18143	0.41065	0.01037	0.00325	15.38642	0.00933
Mean	0.01788	0.45304	0.40449	0.18127	0.41059	0.01039	0.00203	15.43975	0.00900
%RSD	2.67307	0.11501	0.35187	0.11911	0.02162	0.31479	84.29379	0.48848	5.21528

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.09683	0.03785	0.04978	0.17927	7.57044	0.10048	10.80900	0.09610	0.20680
#2	0.09531	0.03751	0.04997	0.17891	7.59338	0.10077	10.80270	0.09573	0.20819
Mean	0.09607	0.03768	0.04987	0.17909	7.58191	0.10063	10.80585	0.09592	0.20749
%RSD	1.11444	0.64079	0.26532	0.14106	0.21393	0.20485	0.04128	0.27145	0.47483

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
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#1	47.81476	0.10274	-0.01137	0.10235	0.09706	24.15442	0.09725	0.42494	0.41307
#2	47.89063	0.10241	-0.01137	0.09884	0.09926	24.10907	0.09702	0.41771	0.41692
Mean	47.85269	0.10258	-0.01137	0.10060	0.09816	24.13174	0.09713	0.42132	0.41499
%RSD	0.11212	0.23384	0.00000	2.47097	1.58360	0.13289	0.16753	1.21200	0.65598

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	3.38193	0.10316	0.22459	-0.00026	0.09251	0.43398	-0.02690	0.10023	0.09694
#2	3.37407	0.10726	0.22480	-0.00837	0.09210	0.42886	-0.03376	0.09916	0.09459
Mean	3.37800	0.10521	0.22470	-0.00432	0.09230	0.43142	-0.03033	0.09970	0.09576
%RSD	0.16438	2.75480	0.06578	132.86659	0.31229	0.83807	16.00636	0.75490	1.73874

	Zr	Pb	Se
	ppm	calc	calc
#1	-0.00048	0.09882	0.41702
#2	0.00015	0.09912	0.41718
Mean	-0.00016	0.09897	0.41710
%RSD	270.03608	0.21126	0.02764

Method : Paragon File : 111118A

Printed : 11/21/2011 12:56:03

SampleId1 : 1111134-1

SampleId2 :

[SAMPLE]

Analysis commenced : 11/18/2011 21:53:28

Dilution ratio : 1.00000 to 1.00000 Tray :

Position : TUBE105

Final concentrations

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00107	0.44069	-0.00632	2.01858	2.63369	0.00073	0.00294	12.57448	-0.00084
#2	-0.00007	0.43970	-0.00537	2.02042	2.63902	0.00071	-0.00555	12.60007	-0.00086
Mean	-0.00057	0.44020	-0.00584	2.01950	2.63635	0.00072	-0.00130	12.58728	-0.00085
%RSD	122.86368	0.15890	11.46688	0.06460	0.14291	2.38615	461.00757	0.14373	2.12620

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	0.00308	0.01598	0.00041	47.42752	4.60490	0.10096	0.99116	0.68683	0.00375
#2	0.00240	0.01639	0.00051	47.49996	4.62173	0.10136	0.99877	0.68813	0.00432
Mean	0.00274	0.01618	0.00046	47.46374	4.61331	0.10116	0.99496	0.68748	0.00404
%RSD	17.59909	1.78693	14.20655	0.10792	0.25785	0.28233	0.54107	0.13369	10.03784

	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	94.18462	0.03105	0.49870	0.00167	0.00227	0.45672	-0.00233	0.00255	0.00442
#2	94.54715	0.03074	0.45308	0.00283	0.00163	0.45989	-0.00098	-0.00074	0.01040
Mean	94.36589	0.03089	0.47589	0.00225	0.00195	0.45831	-0.00166	0.00091	0.00741
%RSD	0.27165	0.69850	6.77891	36.60001	23.36747	0.48969	57.46493	256.51268	57.02080

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	1.02190	0.01190	1.82782	0.01151	-0.00088	-0.00086	-0.01581	-0.00337	1.31541

#2	1.03759	0.00821	1.83102	0.01184	-0.00077	-0.00223	-0.01792	-0.00275	1.31303
Mean	1.02975	0.01005	1.82942	0.01168	-0.00083	-0.00154	-0.01687	-0.00306	1.31422
%RSD	1.07706	25.93395	0.12379	1.99326	9.34830	62.90147	8.84042	14.49446	0.12811

	Zr ppm	Pb calc	Se calc
#1	0.00668	0.00207	0.00380
#2	0.00677	0.00203	0.00669
Mean	0.00673	0.00205	0.00525
%RSD	0.99647	1.44414	38.96814

Method : Paragon File : 111118A
SampleId1 : 1111134-2 SampleId2 :
Analysis commenced : 11/18/2011 21:55:53
Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:56:03
[SAMPLE]

Position : TUBE106

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00163	0.43825	0.00000	3.47939	2.60435	0.00066	-0.00019	8.99300	-0.00065
#2	-0.00065	0.44246	0.00032	3.49153	2.60675	0.00062	-0.00140	9.02457	-0.00041
Mean	-0.00114	0.44035	0.00016	3.48546	2.60555	0.00064	-0.00079	9.00878	-0.00053
%RSD	60.39957	0.67648	141.06942	0.24618	0.06528	4.65390	107.68520	0.24782	32.88450

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.00083	0.02415	-0.00230	28.08637	3.96391	0.21049	0.63382	0.38095	0.00219
#2	0.00104	0.02514	-0.00177	28.14454	3.96441	0.21056	0.63919	0.38280	0.00350
Mean	0.00094	0.02465	-0.00203	28.11546	3.96416	0.21053	0.63650	0.38187	0.00285
%RSD	15.81760	2.85024	18.45356	0.14630	0.00895	0.02470	0.59689	0.34232	32.50019

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	128.00992	0.00307	2.08480	-0.00052	0.00396	0.67256	-0.00170	0.00241	-0.00034
#2	128.31263	0.00396	2.02841	0.00045	0.00003	0.66939	0.00002	0.00394	-0.00110
Mean	128.16128	0.00351	2.05660	-0.00003	0.00200	0.67097	-0.00084	0.00317	-0.00072
%RSD	0.16702	17.73464	1.93884	2021.18743	139.06412	0.33454	144.82115	33.94004	73.93742

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	1.86008	0.00166	1.83528	0.00934	-0.00086	-0.00269	-0.03766	-0.00352	1.03480
#2	1.88183	0.00739	1.83725	0.00730	-0.00087	0.00535	-0.01779	-0.00188	1.03785
Mean	1.87095	0.00452	1.83627	0.00832	-0.00087	0.00133	-0.02772	-0.00270	1.03632
%RSD	0.82216	89.66487	0.07576	17.32775	0.81086	426.98598	50.67991	43.12305	0.20836

	Zr ppm	Pb calc	Se calc
#1	0.00780	0.00247	0.00057
#2	0.00820	0.00017	0.00058

Mean 0.00800 0.00132 0.00058UNDGREEN
 %RSD 3.56558 122.99628 0.44011

Method : Paragon File : 111118A
 SampleId1 : 1111134-3 SampleId2 :
 Analysis commenced : 11/18/2011 21:57:49
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:56:03
 [SAMPLE]

Position : TUBE107

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00169	0.40936	0.00590	1.93703	2.48343	0.00059	-0.00400	12.46892	-0.00109
#2	-0.00034	0.41162	-0.00495	1.93419	2.48601	0.00061	-0.00105	12.43775	-0.00085
Mean	-0.00102	0.41049	0.00047	1.93561	2.48472	0.00060	-0.00252	12.45334	-0.00097
%RSD	94.44293	0.38927	1616.41129	0.10387	0.07324	1.74713	82.68636	0.17696	17.93289

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.00280	0.01523	-0.00095	47.72903	4.24720	0.10069	0.97772	0.68832	0.00465
#2	0.00308	0.01557	-0.00058	47.68697	4.25874	0.10119	0.98399	0.68711	0.00416
Mean	0.00294	0.01540	-0.00077	47.70800	4.25297	0.10094	0.98086	0.68772	0.00440
%RSD	6.72149	1.58788	33.67726	0.06235	0.19194	0.35183	0.45199	0.12410	7.88438

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	93.11071	0.03271	0.52859	-0.00284	0.00376	0.47259	-0.00134	0.00252	0.00372
#2	93.36482	0.03291	0.45923	0.00505	0.00282	0.46307	-0.00232	-0.00051	0.00669
Mean	93.23776	0.03281	0.49391	0.00110	0.00329	0.46783	-0.00183	0.00100	0.00520
%RSD	0.19271	0.43848	9.92896	504.92844	20.24457	1.43917	38.13734	213.08144	40.38831

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	1.03923	0.00903	1.82692	0.00966	-0.00103	0.00277	-0.01739	-0.00364	1.17705
#2	1.06655	0.00534	1.82374	0.00917	-0.00118	-0.00265	-0.01874	-0.00324	1.18079
Mean	1.05289	0.00719	1.82533	0.00942	-0.00111	0.00006	-0.01806	-0.00344	1.17892
%RSD	1.83438	36.27871	0.12313	3.70270	9.53794	6387.01137	5.26255	8.23107	0.22415

	Zr ppm	Pb calc	Se calc
#1	0.00708	0.00157	0.00332
#2	0.00732	0.00356	0.00429
Mean	0.00720	0.00256	0.00381
%RSD	2.33177	55.09131	18.13013

Method : Paragon File : 111118A
 SampleId1 : 1111161-3 SampleId2 :
 Analysis commenced : 11/18/2011 21:59:44
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:56:03
 [SAMPLE]

Position : TUBE108

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00052	0.03381	-0.00253	4.70119	0.16091	0.00049	-0.00453	6.80507	-0.00086
#2	-0.00015	0.03189	-0.01169	4.70181	0.16037	0.00046	-0.00591	6.79983	-0.00030
Mean	-0.00033	0.03285	-0.00711	4.70150	0.16064	0.00048	-0.00522	6.80245	-0.00058
%RSD	77.79197	4.14949	91.14047	0.00934	0.23878	4.81004	18.77576	0.05450	67.66105

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00045	-0.00021	-0.00331	29.52113	1.19364	0.06644	0.28014	0.25286	0.02945
#2	0.00031	-0.00017	-0.00267	29.51122	1.18189	0.06610	0.28819	0.25231	0.03166
Mean	-0.00007	-0.00019	-0.00299	29.51618	1.18777	0.06627	0.28416	0.25258	0.03056
%RSD	740.08377	12.14979	15.08993	0.02375	0.69935	0.36386	2.00504	0.15497	5.11471

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	41.16468	0.00429	0.08534	-0.00113	-0.00023	0.60590	0.00038	0.01412	0.01409
#2	40.91828	0.00396	0.08898	0.00134	-0.00160	0.60590	-0.00205	0.00970	0.02013
Mean	41.04148	0.00413	0.08716	0.00010	-0.00091	0.60590	-0.00084	0.01191	0.01711
%RSD	0.42452	5.81189	2.95442	1694.51464	106.02222	0.00000	205.82777	26.22406	24.99000

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	0.76867	0.02050	0.63991	0.00738	-0.00329	-0.00590	-0.01804	-0.00316	0.07575
#2	0.76868	0.02214	0.63806	0.00739	-0.00308	-0.01351	-0.02078	-0.00288	0.07743
Mean	0.76867	0.02132	0.63898	0.00738	-0.00318	-0.00971	-0.01941	-0.00302	0.07659
%RSD	0.00119	5.43382	0.20479	0.05600	4.63741	55.42449	9.98025	6.65258	1.55258

	Zr ppm	Pb calc	Se calc
#1	-0.00040	-0.00053	0.01410
#2	-0.00025	-0.00062	0.01666
Mean	-0.00033	-0.00058	0.01538
%RSD	31.43166	11.38793	11.78115

Method : Paragon File : 111118A
 SampleId1 : 1111172-5 10X SampleId2 :
 Analysis commenced : 11/18/2011 22:01:38
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:56:03
 [SAMPLE]
 Position : TUBE109

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00052	0.01423	0.00400	0.06168	0.00137	0.00036	-0.00262	43.85583	-0.00078
#2	-0.00072	0.01743	-0.00621	0.06992	0.00166	0.00035	-0.00401	48.48239	-0.00061
Mean	-0.00062	0.01583	-0.00111	0.06580	0.00152	0.00035	-0.00331	46.16911	-0.00069
%RSD	23.31080	14.29002	653.57317	8.85526	13.57416	2.40826	29.58517	7.08585	16.89453

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	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00067	0.01009	-0.00257	0.11700	0.24269	0.00192	27.67908	-0.00067	0.00015
#2	-0.00170	0.01100	-0.00221	0.13212	0.34954	0.00255	30.39114	-0.00058	-0.00042
Mean	-0.00119	0.01054	-0.00239	0.12456	0.29612	0.00223	29.03511	-0.00063	-0.00014
%RSD	61.36826	6.10407	10.76178	8.58227	25.51477	19.98177	6.60482	10.37742	293.14771

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	31.33035	0.02562	-0.02115	-0.00077	0.00030	73.40849	-0.00438	0.00066	0.00592
#2	36.46753	0.02708	-0.02160	-0.00376	-0.00241	83.83685	-0.00464	-0.00174	0.00243
Mean	33.89894	0.02635	-0.02137	-0.00226	-0.00105	78.62267	-0.00451	-0.00054	0.00417
%RSD	10.71576	3.91263	1.50499	93.39912	181.46355	9.37893	4.06091	314.79997	59.14721

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	0.99725	-0.00449	1.40646	-0.03395	-0.00350	-0.00291	-0.02960	-0.00056	0.00077
#2	1.12421	-0.00367	1.56635	-0.02123	-0.00345	-0.00271	-0.03030	-0.00035	0.00010
Mean	1.06073	-0.00408	1.48641	-0.02759	-0.00347	-0.00281	-0.02995	-0.00046	0.00044
%RSD	8.46335	14.20926	7.60641	32.60639	1.01245	5.17665	1.64533	32.06826	108.72443

	Zr ppm	Pb calc	Se calc
#1	0.00167	-0.00006	0.00417
#2	0.00056	-0.00286	0.00104
Mean	0.00112	-0.00146	0.00260
%RSD	70.55986	135.89687	84.92934

Method : Paragon File : 111118A
 SampleId1 : 1111238-1 25X SampleId2 :
 Analysis commenced : 11/18/2011 22:03:30
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:56:04

[SAMPLE]

Position : TUBE110

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00044	0.01752	-0.00421	-0.00141	-0.00046	0.00040	-0.00436	12.44305	-0.00085
#2	-0.00051	0.01925	-0.00400	-0.00187	-0.00046	0.00035	-0.00245	12.44716	-0.00051
Mean	-0.00048	0.01839	-0.00411	-0.00164	-0.00046	0.00037	-0.00340	12.44510	-0.00068
%RSD	9.37258	6.66192	3.62643	19.73807	0.00000	7.97447	39.70162	0.02339	35.52191

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00116	-0.00135	-0.00238	-0.01434	9.86463	-0.00200	4.63715	-0.00086	-0.00067
#2	-0.00095	-0.00142	-0.00239	-0.01541	9.89750	-0.00203	4.65376	-0.00104	-0.00255
Mean	-0.00105	-0.00139	-0.00239	-0.01488	9.88107	-0.00201	4.64545	-0.00095	-0.00161
%RSD	13.89010	3.52934	0.28444	5.08587	0.23520	0.74164	0.25280	13.71167	82.60361

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	73.45460	-0.00147	-0.00295	-0.00017	0.00031	54.04623	-0.00207	-0.00501	0.00129
#2	73.38222	-0.00174	-0.01023	-0.00044	-0.00047	54.13921	-0.00282	-0.00715	-0.00195
Mean	73.41841	-0.00160	-0.00659	-0.00031	-0.00008	54.09272	-0.00244	-0.00608	-0.00033
%RSD	0.06972	11.95109	78.12610	61.27692	709.17304	0.12155	21.70980	24.82543	696.81943

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	-0.01710	-0.00244	0.00335	0.00119	-0.00316	-0.00078	-0.04393	-0.00104	-0.00024
#2	-0.01776	0.00125	0.00327	-0.00563	-0.00349	-0.00637	-0.03157	-0.00104	-0.00057
Mean	-0.01743	-0.00059	0.00331	-0.00222	-0.00332	-0.00357	-0.03775	-0.00104	-0.00040
%RSD	2.66597	438.22432	1.73051	217.33840	6.98208	110.68248	23.15027	0.01415	58.96150

	Zr ppm	Pb calc	Se calc
#1	-0.00099	0.00015	-0.00081
#2	-0.00042	-0.00046	-0.00368
Mean	-0.00071	-0.00015	-0.00224
%RSD	56.76858	280.03700	90.45137

Method : Paragon File : 111118A
SampleId1 : CCV SampleId2 :
Analysis commenced : 11/18/2011 22:06:03
Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:56:04
[CV]

Position : STD6

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	0.19785	53.10576	0.51459	1.02215	1.02997	0.47282	0.54136	47.62218	0.50189
#2	0.19723	52.84076	0.51650	1.02093	1.03040	0.47214	0.54672	47.40605	0.49889
Mean	0.19754	52.97326	0.51554	1.02154	1.03019	0.47248	0.54404	47.51412	0.50039
%RSD	0.22259	0.35373	0.26196	0.08481	0.02894	0.10176	0.69667	0.32164	0.42306

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.48000	0.95873	1.05894	19.67346	49.68046	0.53021	50.27778	0.95752	0.97597
#2	0.47904	0.95703	1.05658	19.61585	49.49402	0.52805	50.16290	0.95463	0.97135
Mean	0.47952	0.95788	1.05776	19.64466	49.58724	0.52913	50.22034	0.95608	0.97366
%RSD	0.14257	0.12549	0.15804	0.20738	0.26586	0.28775	0.16174	0.21367	0.33500

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	49.56814	0.99635	5.06795	0.98699	0.98357	5.26257	0.50631	1.06130	1.02072
#2	49.28404	0.99243	5.05976	0.99066	0.98644	5.26257	0.50629	1.04324	1.03793
Mean	49.42609	0.99439	5.06386	0.98883	0.98500	5.26257	0.50630	1.05227	1.02933
%RSD	0.40645	0.27868	0.11438	0.26246	0.20614	0.00000	0.00301	1.21394	1.18194

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
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	ppm								
#1	4.98149	1.05649	0.50711	0.31368	0.47608	0.52840	4.97785	0.48170	0.93272
#2	4.96659	1.05031	0.50653	0.30285	0.47585	0.53067	4.97239	0.47967	0.92052
Mean	4.97404	1.05340	0.50682	0.30826	0.47597	0.52953	4.97512	0.48068	0.92662
%RSD	0.21179	0.41451	0.08149	2.48404	0.03401	0.30427	0.07766	0.29764	0.93119

	Zr ppm	Pb calc	Se calc
#1	0.98600	0.98471	1.03424
#2	0.98534	0.98784	1.03970
Mean	0.98567	0.98627	1.03697
%RSD	0.04803	0.22494	0.37233

Method : Paragon File : 111118A
SampleId1 : CCB SampleId2 :
Analysis commenced : 11/18/2011 22:08:00
Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:56:04
[CB]

Position : STD2

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	0.00031	0.04545	-0.00474	-0.00278	-0.00096	0.00066	-0.00071	-0.07671	-0.00054
#2	-0.00086	0.04650	-0.00674	-0.00385	-0.00100	0.00068	0.00067	-0.07412	-0.00053
Mean	-0.00028	0.04597	-0.00574	-0.00332	-0.00098	0.00067	-0.00002	-0.07541	-0.00054
%RSD	301.65769	1.60301	24.65211	22.76012	3.00445	2.61762	5887.73668	2.42943	1.80552

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00006	-0.00052	-0.00159	-0.01006	-0.29606	-0.00206	-0.04527	-0.00067	-0.00042
#2	-0.00040	-0.00076	-0.00220	-0.00876	-0.29357	-0.00203	-0.05109	-0.00067	0.00039
Mean	-0.00023	-0.00064	-0.00189	-0.00941	-0.29482	-0.00204	-0.04818	-0.00067	-0.00002
%RSD	105.74030	26.00605	22.93165	9.83014	0.59830	0.85257	8.53916	0.00000	3751.66404

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	-0.17536	-0.00018	0.00115	0.00448	-0.00254	-0.02243	0.00197	-0.00133	-0.00229
#2	-0.17193	-0.00171	-0.01933	-0.00108	0.00096	-0.03512	-0.00378	-0.00438	0.00172
Mean	-0.17364	-0.00094	-0.00909	0.00170	-0.00079	-0.02878	-0.00091	-0.00286	-0.00028
%RSD	1.39443	114.32322	159.25021	231.22423	313.40077	31.18123	448.38723	75.52365	993.73175

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	-0.01954	0.00084	-0.00179	0.00301	-0.00300	0.00464	-0.01510	0.00027	-0.00192
#2	-0.02480	0.00125	-0.00180	0.00551	-0.00310	-0.00328	-0.04393	-0.00071	-0.00057
Mean	-0.02217	0.00104	-0.00179	0.00426	-0.00305	0.00068	-0.02951	-0.00022	-0.00124
%RSD	16.75997	27.77198	0.45630	41.41404	2.30549	819.12073	69.08759	319.04732	76.45882

	Zr ppm	Pb calc	Se calc
#1	0.98600	0.98471	1.03424
#2	0.98534	0.98784	1.03970
Mean	0.98567	0.98627	1.03697
%RSD	0.04803	0.22494	0.37233

#1	0.00054	-0.00020	-0.00197	UNDGREEN
#2	-0.00021	0.00028	-0.00031	
Mean	0.00017	0.00004	-0.00114	
%RSD	320.47811	891.80120	102.51704	

Method : Paragon File : 111118A
 SampleId1 : 1111238-3 25X SampleId2 :
 Analysis commenced : 11/18/2011 22:09:56
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:56:04

[SAMPLE]

Position : TUBE111

Final concentrations

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00149	0.04043	-0.00284	-0.00500	-0.00063	0.00073	0.00275	9.64965	-0.00061
#2	-0.00072	0.05283	-0.00074	-0.00515	-0.00025	0.00076	0.00120	9.64731	-0.00103
Mean	-0.00110	0.04663	-0.00179	-0.00507	-0.00044	0.00074	0.00197	9.64848	-0.00082
%RSD	49.42842	18.80337	83.20663	2.12679	60.40657	3.19137	55.70142	0.01716	35.76527

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00102	-0.00145	-0.00247	-0.01446	7.52860	-0.00200	3.76794	-0.00086	-0.00051
#2	-0.00109	-0.00133	-0.00212	-0.01042	7.48348	-0.00192	3.77692	-0.00067	-0.00051
Mean	-0.00105	-0.00139	-0.00229	-0.01244	7.50604	-0.00196	3.77243	-0.00076	-0.00051
%RSD	4.61874	5.96303	10.82820	22.97823	0.42501	3.05190	0.16818	17.01020	0.00000

	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	49.69229	-0.00045	-0.00295	-0.00211	0.00114	39.36721	-0.00427	-0.00098	-0.00092
#2	49.46581	-0.00096	-0.01319	-0.00130	0.00065	39.31143	-0.00292	0.00547	0.00112
Mean	49.57905	-0.00071	-0.00807	-0.00171	0.00089	39.33932	-0.00360	0.00225	0.00010
%RSD	0.32301	50.91200	89.72728	33.59175	38.47058	0.10026	26.45724	203.04265	1476.85287

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.01710	-0.00080	0.00208	0.00199	-0.00316	0.00242	-0.04736	-0.00120	-0.00024
#2	-0.01561	-0.00039	0.00220	0.00241	-0.00286	0.00203	-0.03157	-0.00091	-0.00024
Mean	-0.01635	-0.00060	0.00214	0.00220	-0.00301	0.00223	-0.03947	-0.00106	-0.00024
%RSD	6.44682	48.61490	4.20364	13.58723	7.00787	12.35927	28.28658	19.21355	0.00000

	Zr	Pb	Se
	ppm	calc	calc
#1	-0.00047	0.00005	-0.00094
#2	-0.00013	0.00000	0.00257
Mean	-0.00030	0.00003	0.00081
%RSD	79.64707	141.26674	305.37549

Method : Paragon File : 111118A
 SampleId1 : 1111238-3L 125X SampleId2 :
 Analysis commenced : 11/18/2011 22:11:48

Printed : 11/21/2011 12:56:04

[SAMPLE]

Dilution ratio : 1.00000 to 1.00000 Tray :

Position : TUBE112

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00003	0.04484	-0.00516	-0.00500	-0.00125	0.00069	0.00067	1.84088	-0.00109
#2	-0.00061	0.04532	-0.00706	-0.00538	-0.00117	0.00066	-0.00297	1.84954	-0.00110
Mean	-0.00032	0.04508	-0.00611	-0.00519	-0.00121	0.00067	-0.00115	1.84521	-0.00110
%RSD	127.37931	0.74793	21.94515	5.19967	4.87065	2.85284	224.22987	0.33205	0.39421

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00116	-0.00180	-0.00275	-0.01601	0.93074	-0.00216	0.70456	-0.00086	-0.00157
#2	-0.00123	-0.00114	-0.00257	-0.01482	0.92874	-0.00212	0.70411	-0.00095	-0.00100
Mean	-0.00119	-0.00147	-0.00266	-0.01541	0.92974	-0.00214	0.70434	-0.00090	-0.00128
%RSD	4.07908	31.72156	4.81951	5.45478	0.15202	1.04746	0.04495	7.20513	31.55007

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	9.26158	-0.00171	-0.01068	-0.00280	-0.00278	7.76414	0.00001	0.00521	0.00052
#2	9.21381	-0.00072	-0.01341	-0.00585	0.00083	7.74498	-0.00354	-0.00324	0.00325
Mean	9.23769	-0.00121	-0.01205	-0.00432	-0.00098	7.75456	-0.00177	0.00099	0.00189
%RSD	0.36564	57.22642	16.02081	49.94432	260.81298	0.17476	142.29823	606.48177	102.20171

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	-0.02267	-0.00490	-0.00115	0.00663	-0.00323	0.00023	-0.03775	-0.00112	-0.00124
#2	-0.02532	-0.00572	-0.00108	0.00038	-0.00316	0.00343	-0.03706	-0.00108	-0.00091
Mean	-0.02399	-0.00531	-0.00111	0.00351	-0.00319	0.00183	-0.03740	-0.00110	-0.00108
%RSD	7.80862	10.91919	4.39822	125.96840	1.54099	123.90559	1.29633	2.64874	22.10204

	Zr ppm	Pb calc	Se calc
#1	-0.00076	-0.00279	0.00208
#2	-0.00032	-0.00140	0.00109
Mean	-0.00054	-0.00209	0.00159
%RSD	57.75142	46.96241	44.41623

Method : Paragon

File : 111118A

Printed : 11/21/2011 12:56:04

SampleId1 : 1111238-3A 25X

SampleId2 :

[SAMPLE]

Analysis commenced : 11/18/2011 22:13:41

Dilution ratio : 1.00000 to 1.00000 Tray :

Position : TUBE113

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00189	0.03956	-0.00516	-0.00675	-0.00079	0.00076	-0.00263	45.80436	-0.00081
#2	-0.00102	0.03938	-0.00084	-0.00675	-0.00067	0.00072	-0.00262	45.35384	-0.00065

Mean	-0.00146	0.03947	-0.00300	-0.00675	-0.00073	0.00074	-0.00263	45.57910	-0.00073
%RSD	42.62431	0.32367	101.73641	0.00000	12.09745	3.46823	0.10690	0.69893	15.69536

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00192	-0.00238	-0.00291	-0.01648	48.28794	0.52886	40.83065	0.00025	-0.00247
#2	-0.00123	-0.00201	-0.00247	-0.01577	47.47901	0.51729	40.23891	0.00025	-0.00239
Mean	-0.00157	-0.00219	-0.00269	-0.01613	47.88348	0.52308	40.53478	0.00025	-0.00243
%RSD	30.96115	11.95405	11.73914	3.12807	1.19456	1.56455	1.03226	0.00000	2.38174

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	89.85902	-0.00225	-0.01319	-0.00858	0.00338	40.37493	-0.00746	-0.01764	0.00555
#2	88.94705	-0.00255	-0.01933	-0.00414	0.00019	40.46359	-0.00330	-0.00401	-0.00110
Mean	89.40303	-0.00240	-0.01626	-0.00636	0.00179	40.41926	-0.00538	-0.01083	0.00223
%RSD	0.72129	8.98438	26.71481	49.37579	126.08681	0.15512	54.67464	89.04119	210.96289

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	-0.02390	-0.00858	0.00226	-0.01322	-0.00290	-0.00299	-0.06246	-0.00185	-0.00057
#2	-0.01861	-0.00367	0.00231	-0.01253	-0.00287	-0.00088	-0.05216	-0.00116	0.00145
Mean	-0.02126	-0.00613	0.00228	-0.01288	-0.00288	-0.00194	-0.05731	-0.00151	0.00044
%RSD	17.58743	56.74287	1.43187	3.78799	0.73097	76.96752	12.70464	32.62756	326.17019

	Zr ppm	Pb calc	Se calc
#1	-0.00025	-0.00060	-0.00217
#2	0.00029	-0.00125	-0.00207
Mean	0.00002	-0.00092	-0.00212
%RSD	1896.95456	49.52761	3.59740

Method : Paragon File : 111118A
 SampleId1 : 1111172-6 10X SampleId2 :
 Analysis commenced : 11/18/2011 22:15:32
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:56:05
 [SAMPLE]

Position : TUBE114

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	-0.00055	0.03584	-0.00242	0.05848	0.00158	0.00066	0.00102	48.66060	-0.00048
#2	-0.00067	0.03111	-0.00390	0.06016	0.00162	0.00059	-0.00401	48.68579	-0.00101
Mean	-0.00061	0.03348	-0.00316	0.05932	0.00160	0.00063	-0.00150	48.67319	-0.00075
%RSD	13.34355	9.99296	33.00171	2.00103	1.83834	8.36467	237.65574	0.03660	49.78175

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	-0.00033	0.01082	-0.00238	0.12045	0.35728	0.00256	30.15588	-0.00040	-0.00059
#2	-0.00095	0.01110	-0.00221	0.11962	0.35878	0.00256	30.17093	-0.00040	-0.00010
Mean	-0.00064	0.01096	-0.00229	0.12003	0.35803	0.00256	30.16341	-0.00040	-0.00034

%RSD	68.58098	1.78194	5.32629	0.49085	0.29585	0.19454	0.03527	0.00000	101.29291
	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	ppm								
#1	36.32156	0.02803	-0.02046	0.00024	-0.00140	83.35760	-0.00330	-0.00011	0.00047
#2	36.18904	0.02878	-0.02092	-0.00288	0.00018	83.19789	-0.00354	-0.00565	0.00481
Mean	36.25530	0.02840	-0.02069	-0.00132	-0.00061	83.27775	-0.00342	-0.00288	0.00264
%RSD	0.25845	1.85724	1.55463	166.55232	181.97596	0.13561	5.04091	135.99763	116.45482
	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm								
#1	1.11526	-0.00244	1.53218	-0.01441	-0.00338	-0.00392	-0.04676	-0.00097	0.00010
#2	1.11651	-0.00203	1.53293	-0.01956	-0.00332	-0.00172	-0.03509	-0.00130	-0.00057
Mean	1.11588	-0.00223	1.53255	-0.01699	-0.00335	-0.00282	-0.04093	-0.00113	-0.00024
%RSD	0.07915	12.96667	0.03466	21.42425	1.26004	55.35434	20.16448	20.42859	202.24255
	Zr	Pb	Se						
	ppm	calc	calc						
#1	0.00015	-0.00086	0.00027						
#2	0.00073	-0.00084	0.00133						
Mean	0.00044	-0.00085	0.00080						
%RSD	92.77946	1.21179	93.01358						

Method : Paragon

File : 111118A

Printed : 11/21/2011 12:56:05

SampleId1 : 1111106-22A

SampleId2 :

[SAMPLE]

Analysis commenced : 11/18/2011 22:17:27

Dilution ratio : 1.00000 to 1.00000 Tray :

Position : TUBE115

Final concentrations

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00045	2.18038	2.00199	0.91267	1.99085	0.04694	0.00273	77.59320	0.04628
#2	-0.00087	2.18312	2.01240	0.91519	2.00053	0.04709	0.00067	77.01214	0.04707
Mean	-0.00066	2.18175	2.00720	0.91393	1.99569	0.04702	0.00170	77.30267	0.04668
%RSD	45.75993	0.08896	0.36653	0.19544	0.34304	0.22997	85.68704	0.53151	1.19649
	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	0.46060	0.17997	0.25600	0.90738	52.17343	0.67474	55.23664	0.45938	1.00109
#2	0.46267	0.18175	0.25862	0.91122	51.61552	0.66726	54.84664	0.46104	1.00785
Mean	0.46164	0.18086	0.25731	0.90930	51.89447	0.67100	55.04164	0.46021	1.00447
%RSD	0.31857	0.69609	0.72092	0.29801	0.76020	0.78826	0.50103	0.25593	0.47559
	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	218.54548	0.48308	-0.03525	0.47718	0.46158	117.02515	0.48646	2.16993	2.05357
#2	218.13944	0.48471	-0.08824	0.47997	0.47211	117.19943	0.48588	2.18483	2.10029
Mean	218.34246	0.48390	-0.06174	0.47857	0.46685	117.11229	0.48617	2.17738	2.07693
%RSD	0.13150	0.23840	60.68319	0.41182	1.59570	0.10523	0.08440	0.48403	1.59049

ted: 11/21/2011 12:56:09 User: MIKE LUNDGREEN

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	16.18144	0.51748	1.07458	-0.02517	0.45016	2.12997	-0.04799	0.47288	0.45343
#2	16.19645	0.52446	1.07687	-0.02197	0.45372	2.11617	-0.03014	0.47580	0.45343
Mean	16.18895	0.52097	1.07572	-0.02357	0.45194	2.12307	-0.03906	0.47434	0.45343
%RSD	0.06559	0.94695	0.15070	9.59280	0.55751	0.45952	32.30629	0.43473	0.00000

	Zr ppm	Pb calc	Se calc
#1	0.00042	0.46677	2.09232
#2	-0.00025	0.47473	2.12844
Mean	0.00008	0.47075	2.11038
%RSD	559.20422	1.19492	1.21034

Method : Paragon

File : 111118A

Printed : 11/21/2011 12:56:05

SampleId1 : CRI

SampleId2 :

[FLEXQC]

Analysis commenced : 11/18/2011 22:19:19

Dilution ratio : 1.00000 to 1.00000 Tray :

Position : STD3

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	0.01920	0.48752	0.01317	0.41512	0.42275	0.01197	0.04998	4.92907	0.01063
#2	0.01940	0.49202	0.01201	0.41237	0.42007	0.01205	0.05848	4.97320	0.01094
Mean	0.01930	0.48977	0.01259	0.41374	0.42141	0.01201	0.05423	4.95114	0.01078
%RSD	0.71992	0.64944	6.50933	0.47008	0.44953	0.43647	11.08246	0.63032	2.05712

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.09948	0.02034	0.05154	0.18998	3.76299	0.01530	5.18844	0.03068	0.02061
#2	0.09982	0.02087	0.05180	0.19201	3.74493	0.01517	5.18081	0.03096	0.02200
Mean	0.09965	0.02060	0.05167	0.19100	3.75396	0.01523	5.18462	0.03082	0.02131
%RSD	0.24187	1.80661	0.35930	0.74957	0.34014	0.58820	0.10411	0.63302	4.61818

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	4.24205	0.08280	0.18551	0.00497	0.00891	0.19649	0.12323	0.02289	0.01266
#2	4.19153	0.08361	0.18369	0.00715	0.00658	0.19649	0.12422	0.01066	0.01462
Mean	4.21679	0.08321	0.18460	0.00606	0.00774	0.19649	0.12372	0.01677	0.01364
%RSD	0.84714	0.69179	0.69785	25.39765	21.27474	0.00000	0.56522	51.55869	10.16035

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	0.09375	0.10201	0.02054	0.01388	0.01838	0.02148	0.16053	0.10138	0.04582
#2	0.09563	0.10078	0.02049	0.01816	0.01826	0.02079	0.17357	0.10171	0.04952
Mean	0.09469	0.10140	0.02051	0.01602	0.01832	0.02114	0.16705	0.10154	0.04767
%RSD	1.40382	0.85726	0.15942	18.85311	0.46034	2.31532	5.52129	0.22832	5.48649

	Zr	Pb	SeUNDGREEN
	ppm	calc	calc
#1	0.04936	0.00760	0.01607
#2	0.05017	0.00677	0.01330
Mean	0.04976	0.00718	0.01468
%RSD	1.14853	8.15754	13.31771

Method : Paragon

File : 111118A

Printed : 11/21/2011 12:56:05

SampleId1 : ICSA

SampleId2 :

[FLEXQC]

Analysis commenced : 11/18/2011 22:21:16

Dilution ratio : 1.00000 to 1.00000 Tray :

Position : STD4

Final concentrations

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00042	276.55416	-0.00211	-0.00660	-0.00108	0.00117	0.01109	256.33172	-0.00018
#2	-0.00051	275.93082	-0.00853	-0.00599	-0.00104	0.00115	0.00796	255.69589	-0.00027
Mean	-0.00046	276.24249	-0.00532	-0.00629	-0.00106	0.00116	0.00953	256.01380	-0.00022
%RSD	13.68632	0.15956	85.41710	6.85716	2.76913	0.93357	23.20193	0.17562	28.27373

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	0.00056	-0.00165	-0.00617	105.17005	-0.30380	-0.00182	270.38058	0.00061	-0.00149
#2	0.00063	-0.00195	-0.00615	104.93940	-0.30355	-0.00180	270.00499	0.00043	-0.00108
Mean	0.00059	-0.00180	-0.00616	105.05472	-0.30367	-0.00181	270.19279	0.00052	-0.00128
%RSD	8.18308	11.91424	0.17606	0.15525	0.05808	0.68709	0.09829	24.87137	22.53576

	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.14934	-0.00001	0.00297	-0.01671	0.00540	0.02516	0.00675	-0.01227	0.00769
#2	-0.14851	-0.00018	0.00046	-0.01176	0.00585	0.03467	0.00038	-0.01756	-0.00011
Mean	-0.14892	-0.00010	0.00171	-0.01424	0.00563	0.02992	0.00357	-0.01492	0.00379
%RSD	0.39345	124.79068	103.19061	24.57786	5.60041	22.49769	126.18473	25.06841	145.60806

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.02960	0.00534	-0.00032	-0.03880	-0.00134	0.00894	0.03550	-0.00531	-0.00292
#2	-0.02982	0.00207	-0.00035	-0.03399	-0.00116	0.00223	0.01574	-0.00519	-0.00225
Mean	-0.02971	0.00370	-0.00033	-0.03639	-0.00125	0.00558	0.02562	-0.00525	-0.00259
%RSD	0.52639	62.56826	7.32457	9.35183	10.12529	85.00790	54.52283	1.60059	18.36794

	Zr	Pb	Se
	ppm	calc	calc
#1	0.00482	-0.00196	0.00104
#2	0.00456	-0.00002	-0.00592
Mean	0.00469	-0.00099	-0.00244
%RSD	4.03849	139.15285	201.63539

Method : Paragon

File : 111118A

Printed : 11/21/2011 12:56:05

SampleId1 : ICSAB SampleId2 :
 Analysis commenced : 11/18/2011 22:23:14
 Dilution ratio : 1.00000 to 1.00000 Tray :

[FLEXQC]
 Position : STD5

Final concentrations

	Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
#1	0.18765	217.60244	0.09453	1.00676	0.50806	0.46067	0.53463	257.08170	0.98785
#2	0.18816	217.53211	0.10107	1.00546	0.50764	0.46106	0.54572	256.99716	0.99022
Mean	0.18791	217.56728	0.09780	1.00611	0.50785	0.46087	0.54017	257.03943	0.98904
%RSD	0.19486	0.02286	4.72758	0.09149	0.05834	0.05921	1.45197	0.02326	0.16909

	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm	Mn ppm	Mo ppm
#1	0.46057	0.45552	0.53319	105.47699	-0.26738	1.07012	268.77832	0.47048	0.95406
#2	0.46126	0.45501	0.53591	105.46481	-0.26513	1.06850	269.23022	0.47085	0.96238
Mean	0.46091	0.45527	0.53455	105.47090	-0.26625	1.06931	269.00427	0.47067	0.95822
%RSD	0.10602	0.07867	0.36046	0.00816	0.59626	0.10661	0.11879	0.05562	0.61388

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	-0.15702	0.95815	0.98692	0.03628	0.05398	1.07896	0.58203	0.03742	0.05309
#2	-0.15707	0.96026	0.98166	0.03702	0.05320	1.07261	0.58372	0.04727	0.05539
Mean	-0.15704	0.95921	0.98429	0.03665	0.05359	1.07579	0.58288	0.04234	0.05424
%RSD	0.02487	0.15573	0.37801	1.41569	1.02625	0.41746	0.20497	16.45135	2.99608

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	0.93173	1.05268	0.99195	0.03612	0.92186	0.10094	9.88316	0.46564	0.89001
#2	0.93390	1.04362	0.99215	0.03887	0.92166	0.10574	9.88937	0.46720	0.88663
Mean	0.93281	1.04815	0.99205	0.03750	0.92176	0.10334	9.88626	0.46642	0.88832
%RSD	0.16479	0.61099	0.01429	5.17396	0.01529	3.28449	0.04442	0.23615	0.26972

	Zr ppm	Pb calc	Se calc
#1	0.48169	0.04809	0.04787
#2	0.48203	0.04781	0.05269
Mean	0.48186	0.04795	0.05028
%RSD	0.04952	0.40469	6.76942

Method : Paragon File : 111118A
 SampleId1 : CCV SampleId2 :
 Analysis commenced : 11/18/2011 22:25:11
 Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:56:06
 [CV]
 Position : STD6

Final concentrations

Ag ppm	Al ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca ppm	Cd ppm
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#1	0.19705	52.91161	0.51851	1.01633	1.02272	0.47230	0.54012	47.89927	0.50138
#2	0.19947	52.70922	0.51947	1.01503	1.02137	0.47246	0.53699	47.76785	0.49988
Mean	0.19826	52.81041	0.51899	1.01568	1.02205	0.47238	0.53855	47.83356	0.50063
%RSD	0.86306	0.27099	0.13012	0.09063	0.09335	0.02296	0.41015	0.19426	0.21143

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	0.47903	0.95957	1.04995	19.71818	49.24337	0.52445	50.37282	0.95743	0.97654
#2	0.47965	0.96096	1.04832	19.68311	49.14754	0.52340	50.26624	0.95640	0.97004
Mean	0.47934	0.96026	1.04914	19.70065	49.19546	0.52392	50.31953	0.95691	0.97329
%RSD	0.09143	0.10258	0.10997	0.12587	0.13774	0.14157	0.14976	0.07575	0.47277

	Na	Ni	P	Pb I	Pb II	S	Sb	Se I	Se II
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	49.30063	0.99124	5.00875	0.98696	0.98031	5.26257	0.50073	1.04078	1.01169
#2	49.18162	0.99458	5.02794	0.98001	0.97827	5.23707	0.49719	1.05554	1.01926
Mean	49.24112	0.99291	5.01835	0.98349	0.97929	5.24982	0.49896	1.04816	1.01548
%RSD	0.17089	0.23784	0.27033	0.49963	0.14722	0.34344	0.50154	0.99538	0.52694

	Si	Sn	Sr	Th	Ti	Tl	U	V	Zn
	ppm								
#1	4.96145	1.04908	0.50392	0.30796	0.47587	0.53010	4.93723	0.47969	0.93340
#2	4.95813	1.04702	0.50390	0.31543	0.47613	0.52907	4.92694	0.48034	0.93475
Mean	4.95979	1.04805	0.50391	0.31170	0.47600	0.52958	4.93209	0.48002	0.93407
%RSD	0.04733	0.13890	0.00328	1.69415	0.03845	0.13664	0.14759	0.09578	0.10265

	Zr	Pb	Se
	ppm	calc	calc
#1	0.98379	0.98252	1.02138
#2	0.98268	0.97885	1.03134
Mean	0.98324	0.98069	1.02636
%RSD	0.07955	0.26491	0.68624

Method : Paragon File : 111118A
SampleId1 : CCB SampleId2 :
Analysis commenced : 11/18/2011 22:27:18
Dilution ratio : 1.00000 to 1.00000 Tray :

Printed : 11/21/2011 12:56:06
[CB]

Position : STD2

Final concentrations

	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
#1	-0.00122	0.06052	0.00032	-0.00568	-0.00117	0.00064	-0.00367	-0.05051	-0.00088
#2	-0.00045	0.12674	-0.00779	-0.00469	-0.00058	0.00081	-0.00314	0.02982	-0.00010
Mean	-0.00084	0.09363	-0.00374	-0.00519	-0.00088	0.00073	-0.00340	-0.01035	-0.00049
%RSD	64.85019	50.01331	153.38937	13.51915	47.06137	16.29728	10.97655	549.06132	112.06010

	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
	ppm								
#1	-0.00130	-0.00129	-0.00274	-0.00067	-0.28758	-0.00199	-0.02916	-0.00076	-0.00083

#2	-0.00061	-0.00073	-0.00166	0.03085	-0.26912	-0.00177	0.06259	-0.00030	-0.00018
Mean	-0.00095	-0.00101	-0.00220	0.01509	-0.27835	-0.00188	0.01672	-0.00053	-0.00051
%RSD	51.06410	38.99186	34.67970	147.68808	4.68938	8.33342	388.07178	60.81189	91.40927

	Na ppm	Ni ppm	P ppm	Pb I ppm	Pb II ppm	S ppm	Sb ppm	Se I ppm	Se II ppm
#1	-0.17110	-0.00211	-0.00727	-0.00897	0.00071	-0.02878	-0.00280	-0.01612	0.00257
#2	-0.15757	-0.00038	-0.01137	-0.00439	-0.00080	-0.02878	-0.00183	0.00016	0.00087
Mean	-0.16434	-0.00125	-0.00932	-0.00668	-0.00004	-0.02878	-0.00231	-0.00798	0.00172
%RSD	5.82283	97.90736	31.07149	48.44802	2440.04351	0.00000	29.91811	144.25951	69.70401

	Si ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	Tl ppm	U ppm	V ppm	Zn ppm
#1	-0.02618	-0.00367	-0.00174	0.00355	-0.00321	-0.00298	-0.05286	-0.00116	-0.00091
#2	-0.02279	-0.00039	-0.00132	0.00254	-0.00271	-0.00295	-0.03709	-0.00082	0.00044
Mean	-0.02448	-0.00203	-0.00153	0.00304	-0.00296	-0.00297	-0.04498	-0.00099	-0.00024
%RSD	9.78073	114.18078	19.21722	23.48121	11.87595	0.53200	24.79115	23.81007	404.48779

	Zr ppm	Pb calc	Se calc
#1	-0.00049	-0.00251	-0.00365
#2	0.00030	-0.00200	0.00064
Mean	-0.00010	-0.00225	-0.00151
%RSD	564.11390	16.19471	201.00295

Header Information for Analytical Sequence 11K18p00

Instrument: Agilent ICPMS Model 7700X; Serial No. JP09400112
Software Revision: B.01.01
Date of Analysis: 11/18/2011
Analyst: Ross Miller

Calibration Standards

High Calibration Standard: ST100324-6 (expires 2/28/2015)

This standard contains the following elements at the listed concentrations (ng/ml).

100000	50000	10000	5000	2000	1000	500	200	100	50	30	10	2
Na	Ca	Mg	Fe	Zn	B	Cr	Mn	V	Pb	Sb	Th	Tl
	K		Al	Ti	Cu	Ni		Co	Be	Cd	U	
					Li	Sn		As		Y	Ag	
								Se		La		
								Mo		Ce		
								Ba		Pr		
								Sr		Nd		

1/10, 1/100, and 1/1000 dilutions of the High Calibration Standard are prepared daily to provide additional calibration standards.

ICV

The ICV is prepared by diluting 1ml of the 2nd Source intermediate (ST110707-8, expires 06/20/2012) to 5ml giving the following concentrations (ng/ml).

20000	10000	2000	1000	400	200	100	40	20	10	6	2	0.4
Na	Ca	Mg	Fe	Zn	B	Cr	Mn	V	Pb	Sb	Th	Tl
	K		Al	Ti	Cu	Ni		Co	Be	Cd	U	
					Li	Sn		As		Y	Ag	
								Se		La		
								Mo		Ce		
								Ba		Pr		
								Sr		Nd		

CRI1

The RL1 is prepared by diluting 0.05ml of the Reporting Limit Verification Spike Solution (ST100324-9 expires 2/28/2015) to 50ml giving the following concentrations (ng/ml).

100	50	10	5	2	1	0.5	0.2	0.1	0.05	0.03	0.02	0.01
Na	Ca	Mg	Al	Zn	B	Cr	Mn	V	Pb	Sb	Th	U
	K		Fe	Ti	Cu	Ni		Co	Be	Cd	Tl	Ag
					Li	Sn		As		Y		
								Se		La		
								Mo		Ce		
								Ba		Pr		
								Sr		Nd		

CRI2

The RL2 is prepared by diluting 0.1ml of the Reporting Limit Verification Spike Solution (ST100324-9 expires 2/28/2015) to 50ml giving the following concentrations (ng/ml).

200	100	20	10	4	2	1	0.4	0.2	0.1	0.06	0.04	0.02
Na	Ca	Mg	Al	Zn	B	Cr	Mn	V	Pb	Sb	Th	U
	K		Fe	Ti	Cu	Ni		Co	Be	Cd	Tl	Ag
					Li	Sn		As		Y		
								Se		La		
								Mo		Ce		
								Ba		Pr		
								Sr		Nd		

ICSA

The ICSA is prepared by diluting 0.5ml of ICSA intermediate (ST111103-1, expires 12/01/12) to a final volume of 50ml giving the following concentrations (ng/ml).

42.5 X 10 ⁶	30000	25000	20000	10000	200
Cl	Ca	Fe	C	Al	Mo
		Na		K	Ti
				Mg	
				P	
				S	

ICSAB

The ICSAB is prepared by diluting 0.5ml of ICSA intermediate (ST111103-1, expires 12/01/12) and 5ml of High Calibration Standard: ST100324-6 (expires 2/28/2015) to a final volume of 50ml. The ICSAB contains the following elements at the listed concentrations (ng/ml).

42.5X10 ⁶	35000	25500	20000	15000	11000	10500	10000	400	210
Cl	Ca	Fe	C	K	Mg	Al	P	Ti	Mo
	Na						S		

200	100	50	20	10	5	3	1	0.2
Zn	B	Cr	Mn	V	Pb	Sb	Th	Tl
	Cu	Ni		Co	Be	Cd	U	
	Li	Sn		As		Y	Ag	
				Se		La		
				Ba		Ce		
				Sr		Pr		
						Nd		

CCV

The CCV is prepared by diluting 5ml of the High Calibration Standard: ST100324-6 (expires 2/28/2015) to a final volume of 50ml. The CCV contains the following elements at the listed concentrations (ng/ml).

10000	5000	1000	500	200	100	50	20	10	5	3	1	0.2
Na	Ca	Mg	Fe	Zn	B	Cr	Mn	V	Pb	Sb	Th	Tl
	K		Al	Ti	Cu	Ni		Co	Be	Cd	U	
					Li	Sn		As		Y	Ag	
								Se		La		
								Mo		Ce		
								Ba		Pr		
								Sr		Nd		

Linear Dynamic Range Standards

LDR-Ca,Na,K

The LDR-Ca,Na,K standard is prepared by diluting 1ml of the High Calibration Standard Intermediate Mix (ST100324-5, expires 2/28/2015) to a final volume of 10ml. The LDR-Ca,Na,K standard contains the following elements at the listed concentrations (ng/ml).

100000	50000	20000	10000	5000	2000	1000	500	300	100	20
Mg	Fe	Zn	B	Cr	Mn	V	Pb	Sb	Th	Tl
	Al	Ti	Cu	Ni		Co	Be	Cd	U	
			Li	Sn		As		Y	Ag	
						Se		La		
						Mo		Ce		
						Ba		Pr		
						Sr		Nd		

1000 Na

The 1000 Na standard is prepared by diluting 1ml of the 10000mg/L Na stock solution (ST100301-26, expires 2/28/2015) to a final volume of 10ml. The 1000 Na standard contains Na at 100000 ng/ml.

500 Ca

The 500 Ca standard is prepared by diluting 0.5ml of the 10000mg/L Ca stock solution (ST100301-9, expires 2/28/2015) to a final volume of 10ml. The 500 Ca standard contains Ca at 50000 ng/ml.

500 K

The 500 K standard is prepared by diluting 0.5ml of the 10000mg/L K stock solution (ST100301-22, expires 2/28/2015) to a final volume of 10ml. The 500 K standard contains K at 50000 ng/ml.

Linear Dynamic Range

The instrument Linear Dynamic Range (LDR) is determined at least every 6 months. The current LDR was determined on 9/22/2010. The file containing the LDR data is 10I22m00. The instrument LDR is given below (ng/ml).

1000000	500000	100000	50000	20000	10000	5000	2000	1000	500	300	100	20
Na	Ca	Mg	Fe	Zn	B	Cr	Mn	V	Pb	Sb	Th	Tl
	K		Al	Ti	Cu	Ni		Co	Be	Cd	U	
					Li	Sn		As		Y	Ag	
								Se		La		
								Mo		Ce		
								Ba		Pr		
								Sr		Nd		

ICB/CCB and all diluent

1% HNO₃, 1%HCl in double deionized water

HNO₃ Lot No. J29049

HCl Lot No. J34056

Internal Standards

Internal standards are introduced continuously using a second channel on the peristaltic pump. The internal standard solution is prepared from 1000mg/L stock solutions. The internal standard solution contains the following elements at the listed concentrations (ng/ml).

<u>500</u>	<u>100</u>	<u>50</u>
Li	Rh	Bi
Ga	In	
Ge	Pt	

Pipet ID Numbers

1.0 to 5.0 ml -- M-55
0.1 to 1.0ml -- M-61
0.01 to 0.1ml -- M-57
0.5ml -- M-14

Dilutions

2X dilutions made by diluting 5ml of sample to 10ml final volume
5X dilutions made by diluting 1ml of sample to 5ml final volume
10X dilutions made by diluting 1ml of sample to 10ml final volume
50X dilutions made by diluting 0.1ml of sample to 5ml final volume
100X dilutions made by diluting 0.1ml of sample to 10ml final volume
200X dilutions made by diluting 0.05ml of sample to 10ml final volume
500X dilutions made by diluting 0.02ml of sample to 10ml final volume

Analytical Spikes

None in this sequence.

Daily Maintenance Items

1. Check / change pump tubing
2. Check / clean drain containers
3. Tune instrument per manufacturer's procedures
4. Perform resolution / mass calibration / stability test and print QC tune report

10/1/2017 10:00 AM

Monthly Maintenance Items

1. Check / clean torch and cones
2. Check / clean nebulizer and spray chamber
3. Check / fill water recirculating reservoir
4. Check / fill vacuum pump oil

Additional Comments

No additional comments.

QC Tune Report

Data File: C:\ICPMH\1\7500\QCTUNE.D
 Date Acquired: 18 Nov 2011 11:02:34 am
 Operator:
 Misc Info:
 Vial Number: 0
 Current Method: C:\ICPMH\1\METHODS\2008TUNE.m

Minimum Response (CPS)

Element	Actual	Required	Flag
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RSD (%)

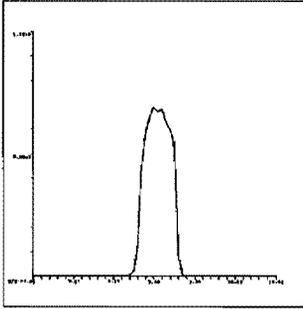
Element	Actual	Required	Flag
9 Be	1.47	5.00	
24 Mg	1.05	5.00	
25 Mg	0.81	5.00	
26 Mg	1.20	5.00	
59 Co	1.05	5.00	
115 In	0.47	5.00	
206 Pb	0.97	5.00	
207 Pb	1.10	5.00	
208 Pb	1.35	5.00	

Ion Ratio

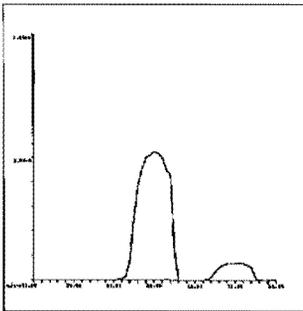
Element	Actual	Required	Flag
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Maximum Bkg. Count (CPS)

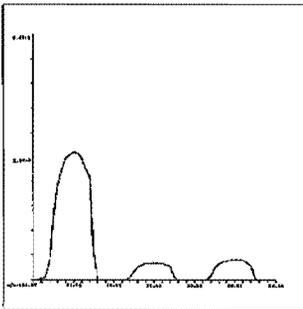
Element	Actual	Required	Flag
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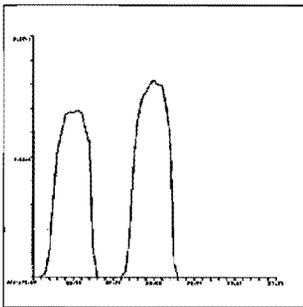
9 Be
Mass Calib.
Actual: 9.05
Required: 8.90-9.10
Flag:
Peak Width
Actual: 0.50
Required: 0.80
Flag:



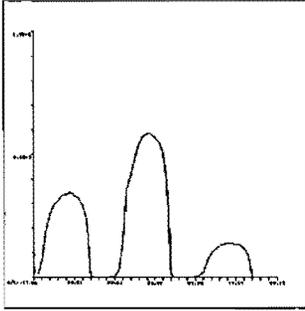
24 Mg
Mass Calib.
Actual: 24.00
Required: 23.90-24.10
Flag:
Peak Width
Actual: 0.55
Required: 0.80
Flag:



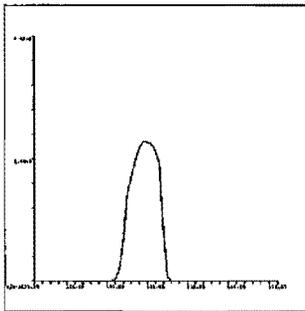
25 Mg
Mass Calib.
Actual: 25.00
Required: 24.90-25.10
Flag:
Peak Width
Actual: 0.55
Required: 0.80
Flag:



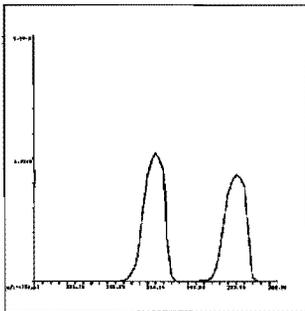
26 Mg
Mass Calib.
Actual: 26.00
Required: 25.90-26.10
Flag:
Peak Width
Actual: 0.55
Required: 0.80
Flag:



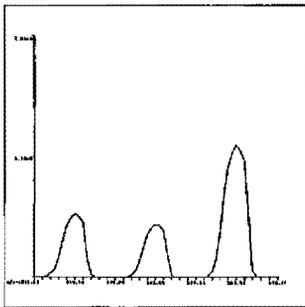
59 Co
Mass Calib.
Actual: 58.95
Required: 58.90-59.10
Flag:
Peak Width
Actual: 0.55
Required: 0.80
Flag:



115 In
Mass Calib.
Actual: 114.90
Required: 114.90-115.10
Flag:
Peak Width
Actual: 0.50
Required: 0.80
Flag:

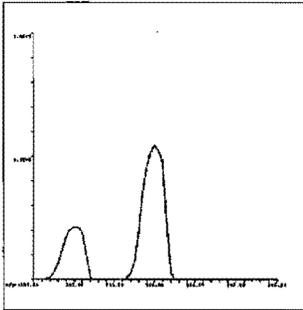


206 Pb
Mass Calib.
Actual: 206.00
Required: 205.90-206.10
Flag:
Peak Width
Actual: 0.45
Required: 0.80
Flag:



207 Pb
Mass Calib.
Actual: 207.00
Required: 206.90-207.10
Flag:
Peak Width
Actual: 0.40
Required: 0.80
Flag:

C:\ICPMH\1\7500\QCTUNE.D



208 Pb

Mass Calib.

Actual: 208.00

Required: 207.90-208.10

Flag:

Peak Width

Actual: 0.40

Required: 0.80

Flag:

QC Tune Result:Pass

Batch Summary Report

Batch Folder: C:\ICPMH\1\DATA\11K18p00.B\#
 Analysis File: 11K18p00.batch.xml
 Tune Step: #1 hehe.u

Rjct	Acq. Date-Time	Data File	Sample Name	Type	Level	Dilution
1	11/18/2011 11:31:15 AM	001SMPL_11K18I00.D	blank	Sample		1.0000
2	11/18/2011 11:33:46 AM	002CALB_11K18I00.D	blank	CalBlk	1	1.0000
3	11/18/2011 11:36:17 AM	003CALB_11K18I00.D	blank	CalBlk	1	1.0000
4	11/18/2011 11:38:49 AM	004CALB_11K18I00.D	H/1000	CalStd	2	1.0000
5	11/18/2011 11:41:21 AM	005CALB_11K18I00.D	H/100	CalStd	3	1.0000
6	11/18/2011 11:43:51 AM	006CALB_11K18I00.D	H/10	CalStd	4	1.0000
7	11/18/2011 11:46:20 AM	007CALB_11K18I00.D	HIGH	CalStd	5	1.0000
8	11/18/2011 11:52:37 AM	008SMPL_11K18I00.D	ICV	6-ICV		1.0000
9	11/18/2011 11:58:55 AM	009SMPL_11K18I00.D	ICB	6-CCB		1.0000
10	11/18/2011 12:01:26 PM	010SMPL_11K18I00.D	CR1	Sample		1.0000
11	11/18/2011 12:03:58 PM	011SMPL_11K18I00.D	CR2	Sample		1.0000
12	11/18/2011 12:06:29 PM	012SMPL_11K18I00.D	ICSA	Sample		1.0000
13	11/18/2011 12:08:59 PM	013SMPL_11K18I00.D	ICSAB	Sample		1.0000
14	11/18/2011 12:15:16 PM	014SMPL_11K18I00.D	IP111116-5MB 10X	6-CCB		1.0000
15	11/18/2011 12:17:45 PM	015SMPL_11K18I00.D	IM111116-5LCS 10X	6-LCS		1.0000
16	11/18/2011 12:20:14 PM	016SMPL_11K18I00.D	1111041-23 10X	Sample		1.0000
17	11/18/2011 12:22:44 PM	017SMPL_11K18I00.D	1111067-35 10X	Sample		1.0000
18	11/18/2011 12:25:14 PM	018SMPL_11K18I00.D	1111086-38 10X	Sample		1.0000
19	11/18/2011 12:27:45 PM	019SMPL_11K18I00.D	1111037-3 10X	Sample		1.0000
20	11/18/2011 12:30:15 PM	020SMPL_11K18I00.D	CCV	6-CCV		1.0000
21	11/18/2011 12:32:46 PM	021SMPL_11K18I00.D	CCB	6-CCB		1.0000
22	11/18/2011 12:35:19 PM	022SMPL_11K18I00.D	1111037-3D 10X	Sample		1.0000
23	11/18/2011 12:37:50 PM	023SMPL_11K18I00.D	1111037-3L 50X	Sample		1.0000
24	11/18/2011 12:41:20 PM	024SMPL_11K18I00.D	1111037-3MS 10X	Sample		1.0000
25	11/18/2011 12:43:51 PM	025SMPL_11K18I00.D	1111037-3MSD 10X	Sample		1.0000
26	11/18/2011 12:46:23 PM	026SMPL_11K18I00.D	1111038-1 10X	Sample		1.0000
27	11/18/2011 12:48:54 PM	027SMPL_11K18I00.D	1111038-2 10X	Sample		1.0000
28	11/18/2011 12:51:23 PM	028SMPL_11K18I00.D	1111040-1 10X	Sample		1.0000

525 of 618

Batch Summary Report

	Rjct	Acq. Date-Time	Data File	Sample Name	Type	Level	Dilution
29		11/18/2011 12:53:53 PM	029SMPL_11K18I00.D	1111040-3 10X	Sample		1.0000
30		11/18/2011 12:56:23 PM	030SMPL_11K18I00.D	1111040-4 10X	Sample		1.0000
31		11/18/2011 12:58:54 PM	031SMPL_11K18I00.D	1111040-5 10X	Sample		1.0000
32		11/18/2011 1:43:00 PM	001SMPL_11K18n01.D	CCV	6-CCV		1.0000
33		11/18/2011 1:45:31 PM	002SMPL_11K18n01.D	CCB	6-CCB		1.0000
34		11/18/2011 1:48:02 PM	003SMPL_11K18n01.D	1111078-35 10X	Sample		1.0000
35		11/18/2011 1:50:33 PM	004SMPL_11K18n01.D	1111040-7 10X	Sample		1.0000
36		11/18/2011 1:53:04 PM	005SMPL_11K18n01.D	1111051-1 10X	Sample		1.0000
37		11/18/2011 1:55:35 PM	006SMPL_11K18n01.D	1111051-2 10X	Sample		1.0000
38		11/18/2011 2:21:06 PM	001SMPL_11K18o00.D	CCV	6-CCV		1.0000
39		11/18/2011 2:23:38 PM	002SMPL_11K18o00.D	CCB	6-CCB		1.0000
40		11/18/2011 2:26:09 PM	003SMPL_11K18o00.D	IP111116-4MB 10X	6-CCB		1.0000
41		11/18/2011 2:28:39 PM	004SMPL_11K18o00.D	IM111116-4RVS 10X	Sample		1.0000
42		11/18/2011 2:31:11 PM	005SMPL_11K18o00.D	IM111116-4LCS 10X	6-LCS		1.0000
43		11/18/2011 2:33:42 PM	006SMPL_11K18o00.D	1111137-1 10X	Sample		1.0000
44		11/18/2011 2:36:13 PM	007SMPL_11K18o00.D	1111138-1 10X	Sample		1.0000
45		11/18/2011 2:38:42 PM	008SMPL_11K18o00.D	1111140-1 10X	Sample		1.0000
46		11/18/2011 2:41:13 PM	009SMPL_11K18o00.D	1111160-1 10X	Sample		1.0000
47		11/18/2011 2:43:44 PM	010SMPL_11K18o00.D	1111162-16 10X	Sample		1.0000
48		11/18/2011 2:46:14 PM	011SMPL_11K18o00.D	1111185-13 10X	Sample		1.0000
49		11/18/2011 2:48:44 PM	012SMPL_11K18o00.D	1111185-13D 10X	Sample		1.0000
50		11/18/2011 2:51:14 PM	013SMPL_11K18o00.D	CCV	6-CCV		1.0000
51		11/18/2011 2:53:45 PM	014SMPL_11K18o00.D	CCB	6-CCB		1.0000
52		11/18/2011 2:56:17 PM	015SMPL_11K18o00.D	1111185-13L 50X	Sample		1.0000
53		11/18/2011 2:58:49 PM	016SMPL_11K18o00.D	1111185-13MS 10X	Sample		1.0000
54		11/18/2011 3:01:19 PM	017SMPL_11K18o00.D	1111185-13MSD 10X	Sample		1.0000
55		11/18/2011 3:03:51 PM	018SMPL_11K18o00.D	1111205-1 10X	Sample		1.0000
56		11/18/2011 3:06:22 PM	019SMPL_11K18o00.D	1111205-2 10X	Sample		1.0000
57		11/18/2011 3:12:41 PM	020SMPL_11K18o00.D	IP111117-3MB 10X	6-CCB		1.0000
58		11/18/2011 3:17:35 PM	021SMPL_11K18o00.D	IP111117-3LCS 10X	6-LCS		1.0000
59		11/18/2011 3:20:05 PM	022SMPL_11K18o00.D	1111005-1 10X	Sample		1.0000
60		11/18/2011 3:22:36 PM	023SMPL_11K18o00.D	1111005-2 10X	Sample		1.0000
61		11/18/2011 3:25:07 PM	024SMPL_11K18o00.D	1111005-2D 10X	Sample		1.0000

526 of 618

Batch Summary Report

	Rjct	Acq. Date-Time	Data File	Sample Name	Type	Level	Dilution
62		11/18/2011 3:27:37 PM	025SMPL_11K18o00.D	CCV	6-CCV		1.0000
63		11/18/2011 3:38:33 PM	001SMPLD	CCB	6-CCB		1.0000
64		11/18/2011 3:41:03 PM	002SMPLD	1111005-2L 50X	Sample		1.0000
65		11/18/2011 3:43:34 PM	003SMPLD	1111005-2MS 10X	Sample		1.0000
66		11/18/2011 3:46:05 PM	004SMPLD	1111005-2MSD 10X	Sample		1.0000
67		11/18/2011 3:48:37 PM	005SMPLD	1111005-3 10X	Sample		1.0000
68		11/18/2011 3:51:07 PM	006SMPLD	1111005-4 10X	Sample		1.0000
69		11/18/2011 3:53:39 PM	007SMPLD	1111005-5 10X	Sample		1.0000
70		11/18/2011 3:57:59 PM	008SMPLD	1111005-6 10X	Sample		1.0000
71		11/18/2011 4:00:29 PM	009SMPLD	CCV	6-CCV		1.0000
72		11/18/2011 4:03:01 PM	010SMPLD	CCB	6-CCB		1.0000
73		11/18/2011 4:05:34 PM	011SMPLD	IP111117-1MB 10X	6-CCB		1.0000
74		11/18/2011 4:08:04 PM	012SMPLD	IM111117-1RVS 10X	Sample		1.0000
75		11/18/2011 4:10:35 PM	013SMPLD	IM111117-1LCS 10X	6-LCS		1.0000
76		11/18/2011 4:13:05 PM	014SMPLD	1111160-2 10X	Sample		1.0000
77		11/18/2011 4:15:36 PM	015SMPLD	1111160-2D 10X	Sample		1.0000
78		11/18/2011 4:18:06 PM	016SMPLD	1111160-2L 50X	Sample		1.0000
79		11/18/2011 4:20:37 PM	017SMPLD	1111160-2MS 10X	Sample		1.0000
80		11/18/2011 4:23:07 PM	018SMPLD	1111160-2MSD 10X	Sample		1.0000
81		11/18/2011 4:25:39 PM	019SMPLD	1111160-2A 10X	Sample		1.0000
82		11/18/2011 4:28:09 PM	020SMPLD	1111160-3 10X	Sample		1.0000
83		11/18/2011 4:34:28 PM	021SMPLD	CCV	6-CCV		1.0000
84		11/18/2011 4:37:00 PM	022SMPLD	CCB	6-CCB		1.0000
85		11/18/2011 4:39:31 PM	023SMPLD	ZZZZZ	Sample		1.0000
86		11/18/2011 4:42:02 PM	024SMPLD	ZZZZZ	Sample		1.0000
87		11/18/2011 4:44:33 PM	025SMPLD	ZZZZZ	Sample		1.0000
88		11/18/2011 4:47:03 PM	026SMPLD	ZZZZZ	Sample		1.0000
89		11/18/2011 4:49:34 PM	027SMPLD	ZZZZZ	Sample		1.0000
90		11/18/2011 4:52:06 PM	028SMPLD	ZZZZZ	Sample		1.0000
91		11/18/2011 4:54:38 PM	029SMPLD	ZZZZZ	Sample		1.0000
92		11/18/2011 4:57:07 PM	030SMPLD	ZZZZZ	Sample		1.0000
93		11/18/2011 4:59:38 PM	031SMPLD	ZZZZZ	Sample		1.0000
94		11/18/2011 5:02:10 PM	032SMPLD	ZZZZZ	Sample		1.0000

527 of 618

Batch Summary Report

	Rjct	Acq. Date-Time	Data File	Sample Name	Type	Level	Dilution
95		11/18/2011 5:08:27 PM	033SMPLD	CCV	6-CCV		1.0000
96		11/18/2011 5:10:59 PM	034SMPLD	CCB	6-CCB		1.0000
97		11/18/2011 5:13:30 PM	035SMPLD	ZZZZZZ	Sample		1.0000
98		11/18/2011 5:16:01 PM	036SMPLD	ZZZZZZ	Sample		1.0000
99		11/18/2011 5:22:20 PM	037SMPLD	ZZZZZZ	Sample		1.0000
100		11/18/2011 5:24:50 PM	038SMPLD	<i>No</i> IM111117-2RVS 10X	Sample		1.0000
101		11/18/2011 5:27:22 PM	039SMPLD	<i>↓</i> IM111117-2LCS 10X	6-LCS		1.0000
102		11/18/2011 5:29:53 PM	040SMPLD	ZZZZZZ	Sample		1.0000
103		11/18/2011 5:32:24 PM	041SMPLD	ZZZZZZ	Sample		1.0000
104		11/18/2011 5:34:56 PM	042SMPLD	ZZZZZZ	Sample		1.0000
105		11/18/2011 5:37:27 PM	043SMPLD	ZZZZZZ	Sample		1.0000
106		11/18/2011 5:39:57 PM	044SMPLD	ZZZZZZ	Sample		1.0000
107		11/18/2011 5:46:15 PM	045SMPLD	CCV	6-CCV		1.0000
108		11/18/2011 5:48:45 PM	046SMPLD	CCB	6-CCB		1.0000
109		11/18/2011 5:51:16 PM	047SMPLD	ZZZZZZ	Sample		1.0000
110		11/18/2011 5:53:47 PM	048SMPLD	1111162-2 10X	Sample		1.0000
111		11/18/2011 5:56:18 PM	049SMPLD	1111162-3 10X	Sample		1.0000
112		11/18/2011 5:58:49 PM	050SMPLD	1111162-4 10X	Sample		1.0000
113		11/18/2011 6:01:20 PM	051SMPLD	1111162-5 10X	Sample		1.0000
114		11/18/2011 6:03:51 PM	052SMPLD	1111162-6 10X	Sample		1.0000
115		11/18/2011 6:06:22 PM	053SMPLD	1111162-7 10X	Sample		1.0000
116		11/18/2011 6:08:53 PM	054SMPLD	1111162-8 10X	Sample		1.0000
117		11/18/2011 6:11:25 PM	055SMPLD	1111162-9 10X	Sample		1.0000
118		11/18/2011 6:13:56 PM	056SMPLD	1111162-10 10X	Sample		1.0000
119		11/18/2011 6:20:14 PM	057SMPLD	CCV	6-CCV		1.0000
120		11/18/2011 6:22:46 PM	058SMPLD	CCB	6-CCB		1.0000
121		11/18/2011 6:25:18 PM	059SMPLD	1111162-11 10X	Sample		1.0000
122		11/18/2011 6:27:49 PM	060SMPLD	1111162-12 10X	Sample		1.0000
123		11/18/2011 6:30:21 PM	061SMPLD	1111162-13 10X	Sample		1.0000
124		11/18/2011 6:32:54 PM	062SMPLD	1111162-14 10X	Sample		1.0000
125		11/18/2011 6:35:26 PM	063SMPLD	1111162-15 10X	Sample		1.0000
126		11/18/2011 6:37:58 PM	064SMPLD	<i>No AS, Se</i> 1110371-1 50X	Sample		1.0000
127		11/18/2011 6:40:30 PM	065SMPLD	<i>↓</i> 1111008-1 50X	Sample		1.0000

528 of 618

Batch Summary Report

	Rjct	Acq. Date-Time	Data File	Sample Name	Type	Level	Dilution
128		11/18/2011 6:43:03 PM	066SMPLD	<i>No As, Se</i> 1111008-2 50X	Sample		1.0000
129		11/18/2011 6:49:23 PM	067SMPLD	CCV	6-CCV		1.0000
130		11/18/2011 6:51:54 PM	068SMPLD	CCB	6-CCB		1.0000
131		11/18/2011 6:54:24 PM	069SMPLD	<i>As, Se only</i> 1110371-1 50X	Sample		1.0000
132		11/18/2011 6:56:57 PM	070SMPLD	1111008-1 50X	Sample		1.0000
133		11/18/2011 6:59:30 PM	071SMPLD	1111008-2 50X	Sample		1.0000
134		11/18/2011 7:05:50 PM	072SMPLD	EX111117-4MB 10X	6-CCB		1.0000
135		11/18/2011 7:08:21 PM	073SMPLD	EX111117-4RVS 10X	Sample		1.0000
136		11/18/2011 7:10:54 PM	074SMPLD	EX111117-4LCS 10X	6-LCS		1.0000
137		11/18/2011 7:13:27 PM	075SMPLD	1111165-21 200X	Sample		1.0000
138		11/18/2011 7:15:58 PM	076SMPLD	1111165-21D 200X	Sample		1.0000
139		11/18/2011 7:18:28 PM	077SMPLD	1111165-21L 1000X	Sample		1.0000
140		11/18/2011 7:21:01 PM	078SMPLD	1111165-21MS 200X	Sample		1.0000
141		11/18/2011 7:27:20 PM	079SMPLD	CCV	6-CCV		1.0000
142		11/18/2011 7:29:52 PM	080SMPLD	CCB	6-CCB		1.0000
143		11/18/2011 7:32:22 PM	081SMPLD	1111165-21MSD 200X	Sample		1.0000
144		11/18/2011 7:34:55 PM	082SMPLD	1111165-22 200X	Sample		1.0000
145		11/18/2011 7:37:28 PM	083SMPLD	1111167-11 200X	Sample		1.0000
146		11/18/2011 7:40:01 PM	084SMPLD	1111167-12 200X	Sample		1.0000
147		11/18/2011 7:42:34 PM	085SMPLD	1111167-13 200X	Sample		1.0000
148		11/18/2011 7:48:54 PM	086SMPLD	IP111117-2MB 10X	6-CCB		1.0000
149		11/18/2011 7:51:25 PM	087SMPLD	CCV	6-CCV		1.0000
150		11/18/2011 7:53:57 PM	088SMPLD	CCB	6-CCB		1.0000

Batch Summary Report

Analyte Table

	Sample Name	27 Al [1]		51 V [1]		52 Cr [1]		63 Cu [1]		75 As [1]	
		Conc. [ppb]	CPS	Conc. [ppb]	CPS	Conc. [ppb]	CPS	Conc. [ppb]	CPS	Conc. [ppb]	CPS
1	blank		233.34		587.68		771.14		794.47		14.00
2	blank	-0.391	193.34	0.007	585.34	-0.011	741.14	0.002	851.15	0.004	19.33
3	blank	0.000	290.02	0.000	584.68	0.000	798.92	0.000	836.70	0.000	15.33
4	H/1000	5.229	1780.18	0.110	1176.05	0.481	3674.90	1.107	7155.00	0.088	107.33
5	H/100	49.087	14583.60	1.002	5819.71	4.944	31291.96	10.532	63709.80	0.912	1013.37
6	H/10	500.089	144211.16	10.122	53615.17	50.500	303227.53	105.122	611187.82	9.580	10218.88
7	HIGH	4478.331	1390318.10	99.988	548411.38	499.951	2933443.36	999.482	5684542.00	100.043	104387.60
8	ICV	977.601	308402.89	20.323	114582.63	105.973	662471.40	212.222	1285636.13	19.526	21699.07
9	ICB	-0.157	263.35	0.025	744.02	-0.003	800.03	0.036	1044.50	0.007	22.67
10	CRI1	22.234	6935.08	0.119	1323.39	0.511	4014.99	1.102	7439.56	0.089	114.00
11	CRI2	9.464	3207.12	0.218	1823.11	0.985	6883.74	2.311	14547.73	0.178	209.33
12	ICSA	8942.606	2718573.61	-0.048	440.68	0.627	4825.22	0.030	1157.84	-0.003	14.67
13	ICSAB	9182.967	2845958.81	9.954	56386.00	52.141	320194.41	103.828	617374.28	9.986	10892.66
14	IP111116-5MB ...	0.443	413.36	-0.029	450.34	-0.015	743.36	-0.021	750.03	-0.003	13.00
15	IM111116-5LCS...	462.610	134990.45	9.967	51815.24	50.189	301387.57	102.213	594368.29	9.337	9960.73
16	1111041-23 10X	1.651	750.06	0.012	648.02	-0.001	828.92	0.062	1200.06	0.003	19.00
17	1111067-35 10X	3.484	1213.44	0.005	627.68	0.231	2101.27	0.012	930.04	-0.002	14.00
18	1111086-38 10X	2.977	1100.09	0.004	628.35	-0.008	788.92	-0.042	643.36	-0.003	13.33
19	1111037-3 10X	2.573	1086.78	0.011	739.35	0.025	1050.05	-0.036	731.14	0.006	23.00
20	CCV	489.887	144522.51	10.356	54283.03	50.815	307442.76	104.723	613532.34	9.582	10298.94
21	CCB	0.057	313.35	0.021	708.02	0.012	872.26	0.024	972.27	0.005	20.67
22	1111037-3D 10X	3.431	1376.86	0.018	773.69	0.028	1057.88	-0.026	784.47	0.006	23.00
23	1111037-3L 50X	1.239	690.05	0.019	769.35	0.002	891.15	0.005	945.60	0.004	21.33
24	1111037-3MS 10X	476.535	142957.44	10.020	54375.03	52.435	314300.21	104.142	604536.54	9.858	10498.40
25	1111037-3MSD ...	485.607	145483.60	10.144	54558.26	52.421	314899.94	104.524	608040.84	9.714	10366.99
26	1111038-1 10X	8.971	2950.41	-0.001	863.03	0.761	5230.91	0.345	2822.51	0.301	324.67
27	1111038-2 10X	4.471	1723.54	-0.015	749.02	0.910	6220.15	0.419	3303.72	0.505	544.01
28	1111040-1 10X	4.375	1496.81	0.610	3763.77	5.830	29059.01	2.175	11011.64	1.411	1233.72
29	1111040-3 10X	1.969	766.72	0.075	945.36	1.715	8020.95	0.651	3390.41	5.398	4140.87
30	1111040-4 10X	1685.753	418651.43	0.138	1233.72	0.106	1102.28	0.345	2117.95	0.192	159.33
31	1111040-5 10X	2539.847	643150.11	0.321	2101.81	0.633	3374.84	0.459	2594.69	0.147	125.00

530 of 618

Batch Summary Report

Analyte Table

	Sample Name	27 Al [1]		51 V [1]		52 Cr [1]		63 Cu [1]		75 As [1]	
		Conc. [ppb]	CPS	Conc. [ppb]	CPS	Conc. [ppb]	CPS	Conc. [ppb]	CPS	Conc. [ppb]	CPS
32	CCV	521.253	162791.11	10.316	59557.64	55.132	331020.36	109.825	638641.95	10.228	10910.33
33	CCB	1.005	596.71	0.036	819.69	0.092	1305.63	0.875	5410.97	0.024	38.67
34	1111078-35 10X	4.446	1736.92	0.021	796.35	0.038	1091.16	3.168	18735.34	0.050	68.67
35	1111040-7 10X	7.347	2150.23	0.645	3624.08	5.566	25351.81	2.276	10485.69	1.449	1155.38
36	1111051-1 10X	1264.991	310951.26	0.206	1456.07	0.064	888.93	0.297	1846.80	0.125	104.33
37	1111051-2 10X	1369.688	346151.15	0.247	1664.42	0.059	881.15	0.346	2075.72	0.148	122.67
38	CCV	506.379	148901.66	10.298	55045.90	54.986	307160.72	109.489	592342.04	10.427	10347.63
39	CCB	0.150	340.02	0.054	864.36	0.007	813.37	0.549	3564.88	0.009	23.33
40	IP111116-4MB ...	0.343	386.69	0.041	812.69	-0.020	667.80	0.522	3394.85	0.000	14.67
41	IM111116-4RVS...	4.860	1550.16	0.144	1233.05	0.532	3438.20	1.508	8148.80	0.096	100.67
42	IM111116-4LCS...	450.488	121992.42	9.400	46412.08	50.339	264434.29	99.992	508618.26	9.454	8822.08
43	1111137-1 10X	0.791	513.37	0.054	868.36	-0.013	720.03	0.435	3045.89	0.037	49.67
44	1111138-1 10X	0.399	406.69	0.156	1313.37	-0.010	744.47	0.810	4990.83	1.828	1737.77
45	1111140-1 10X	0.765	476.70	0.093	974.36	-0.018	668.91	3.662	18750.87	-0.001	14.00
46	1111160-1 10X	5876.140	1685134.92	19.209	89029.98	6.811	34924.76	14.533	71485.79	5.018	4492.64
47	1111162-16 10X	220.463	54585.98	0.495	2801.25	0.188	1660.10	0.760	4386.22	0.175	166.67
48	1111185-13 10X	0.679	450.03	0.324	1974.46	-0.006	711.13	0.490	3121.46	0.025	36.00
49	1111185-13D 10X	5.369	1583.48	0.346	2048.81	-0.003	726.69	0.561	3471.54	0.024	35.33
50	CCV	464.304	111961.54	10.010	43409.69	49.525	244415.66	102.294	488835.33	9.621	8434.54
51	CCB	1.006	453.36	0.023	572.68	-0.018	580.02	0.513	2875.85	0.003	14.67
52	1111185-13L 50X	0.813	450.02	0.098	892.70	-0.022	598.91	0.518	3068.10	0.009	21.00
53	1111185-13MS ...	451.477	106335.64	9.799	42598.61	48.657	237167.88	98.194	463435.63	9.274	8029.00
54	1111185-13MSD...	443.023	108086.88	9.526	43124.31	48.274	240710.29	97.123	468944.48	9.124	8081.69
55	1111205-1 10X	0.482	390.02	0.363	2116.48	0.004	714.47	0.693	3847.18	0.230	203.00
56	1111205-2 10X	0.685	466.69	0.428	2602.22	-0.002	717.81	0.934	5152.00	0.223	205.67
57	IP111117-3MB ...	0.952	523.36	-0.010	530.68	0.174	1617.88	1.420	7663.00	0.055	63.00
58	IP111117-3LCS...	461.245	118657.17	9.580	43816.76	48.111	247361.45	102.725	511347.27	9.477	8653.98
59	1111005-1 10X	13531.796	4148306.71	18.916	86367.71	6.831	35022.74	3.911	19808.83	2.214	1990.13
60	1111005-2 10X	16697.203	5162577.00	17.217	78524.97	8.206	41790.55	5.160	25804.92	2.326	2081.81
61	1111005-2D 10X	15640.892	4900008.68	16.658	75809.51	7.705	39400.21	5.175	25951.81	2.465	2213.16
62	CCV	480.863	115391.36	10.111	44364.18	49.311	246558.45	102.135	494414.02	9.461	8403.18

531 of 618

Batch Summary Report

Analyte Table

	Sample Name	27 Al [1]		51 V [1]		52 Cr [1]		63 Cu [1]		75 As [1]	
		Conc. [ppb]	CPS	Conc. [ppb]	CPS	Conc. [ppb]	CPS	Conc. [ppb]	CPS	Conc. [ppb]	CPS
63	CCB	5.220	1390.14	0.136	1029.70	-0.008	627.80	0.647	3477.08	0.002	14.33
64	1111005-2L 50X	4188.427	1042097.07	3.639	15755.81	1.584	8435.60	1.454	7620.74	0.469	419.34
65	1111005-2MS 10X	16315.341	4864899.82	26.252	117207.97	59.229	284797.11	108.139	503689.74	12.288	10495.06
66	1111005-2MSD ...	17062.121	5079725.97	25.318	114182.66	58.850	287816.38	108.635	514632.95	12.375	10751.89
67	1111005-3 10X	16707.960	5101635.24	22.161	97233.09	37.385	185117.58	9.015	43883.14	3.132	2762.25
68	1111005-4 10X	17417.117	5259800.34	32.535	143863.14	11.857	58454.98	5.829	28284.49	4.413	3834.47
69	1111005-5 10X	14485.204	4320687.54	39.391	171757.10	10.087	49390.24	6.423	30793.51	6.048	5202.85
70	1111005-6 10X	20567.977	7968288.63	49.226	219140.80	24.156	117691.77	13.959	66303.29	5.541	4786.38
71	CCV	476.453	110828.30	10.136	41885.18	48.908	234429.96	101.673	471867.07	9.365	7973.64
72	CCB	10.237	2383.62	0.123	932.36	-0.009	618.91	0.591	3194.80	0.009	19.67
73	IP111117-1MB ...	9.053	2163.57	0.031	604.34	-0.037	503.35	0.508	2884.74	0.004	16.00
74	IM111117-1RVS...	19.864	4460.80	0.161	1072.71	0.504	2919.19	1.477	7092.75	0.113	102.67
75	IM111117-1LCS...	470.700	108294.88	10.011	40579.31	49.128	234494.58	100.798	465871.11	9.512	8065.35
76	1111160-2 10X	7876.114	2205805.23	21.765	91430.59	8.744	42744.08	11.810	55796.72	5.546	4755.38
77	1111160-2D 10X	8148.700	2271165.85	21.912	92692.76	9.151	43984.93	12.023	55872.50	5.627	4746.04
78	1111160-2L 50X	1894.868	458232.22	4.363	18590.06	1.740	9067.05	2.652	13085.39	1.077	932.36
79	1111160-2MS 10X	9270.419	2715857.88	35.770	150993.56	59.729	287028.00	112.157	522037.95	14.943	12755.34
80	1111160-2MSD ...	9493.478	2702979.34	33.744	141859.22	57.606	276089.23	108.155	502064.32	14.321	12191.25
81	1111160-2A 10X	7833.575	2207069.45	21.637	90892.50	8.906	43199.70	12.128	56857.08	9.310	7912.61
82	1111160-3 10X	8813.550	2588541.32	18.343	79453.59	11.204	53506.44	16.004	73873.08	6.694	5624.99
83	CCV	474.145	103823.28	9.763	39579.24	48.238	223393.73	100.742	451753.38	9.374	7712.52
84	CCB	4.517	1153.44	0.007	485.68	-0.018	570.02	0.415	2413.55	0.016	24.67
85	ZZZZZ	8947.528	2627301.99	17.319	73730.24	11.142	54249.76	15.447	72699.83	6.331	5423.25
86	ZZZZZ	8455.862	2459291.11	18.216	78883.93	11.042	53872.88	17.213	81100.09	7.088	6082.15
87	ZZZZZ	3737.264	938905.79	25.646	106936.04	2.636	13386.70	4.105	19871.09	4.720	4046.52
88	ZZZZZ	6203.923	1620605.34	33.443	134667.82	6.036	29008.95	8.646	40050.07	5.601	4684.69
89	ZZZZZ	6365.285	1702617.42	29.957	124645.82	6.537	31285.24	9.293	42895.97	6.671	5565.97
90	ZZZZZ	2116.241	508899.90	54.256	220105.86	1.332	6911.56	2.437	11762.15	4.289	3573.40
91	ZZZZZ	2482.873	604864.63	54.980	222226.59	1.491	7735.25	4.398	20839.00	3.969	3340.02
92	ZZZZZ	2370.407	566139.20	54.868	212800.67	1.421	7322.83	3.109	14777.95	4.073	3390.70
93	ZZZZZ	2644.098	648203.05	86.375	341388.27	2.004	9997.57	3.070	14542.16	5.280	4371.27

532 of 618

Batch Summary Report

Analyte Table

	Sample Name	27 Al [1]		51 V [1]		52 Cr [1]		63 Cu [1]		75 As [1]	
		Conc. [ppb]	CPS	Conc. [ppb]	CPS	Conc. [ppb]	CPS	Conc. [ppb]	CPS	Conc. [ppb]	CPS
94	ZZZZZZ	3428.061	856237.36	20.461	84641.29	1.893	9557.32	3.173	15128.24	4.758	3972.50
95	CCV	462.879	102901.00	10.065	40093.75	47.913	226995.70	100.039	458792.76	9.308	7831.91
96	CCB	1.619	550.03	0.006	478.34	-0.028	530.02	0.335	2082.40	0.003	14.67
97	ZZZZZZ	5010.032	1307567.69	34.122	138674.73	4.955	23806.23	60.088	272406.38	11.877	9866.35
98	ZZZZZZ	9542.604	2698917.25	21.675	89828.24	11.183	53434.85	17.024	78568.77	5.602	4711.70
99	ZZZZZZ	4.823	1190.10	-0.063	234.67	-0.012	592.24	0.312	1969.04	0.011	20.67
100	IM111117-2RVS...	9.374	2140.24	0.029	572.34	0.479	2734.71	1.506	7030.50	0.098	88.67
101	IM111117-2LCS...	449.993	97726.41	9.635	37564.25	47.596	218058.05	98.256	435808.05	9.265	7539.10
102	ZZZZZZ	5719.476	1506284.19	15.656	65052.93	7.415	34576.31	11.226	50476.37	5.819	4743.04
103	ZZZZZZ	5812.389	1539412.37	15.996	66638.23	7.499	35221.93	11.448	51836.11	6.124	5029.12
104	ZZZZZZ	1349.259	309598.25	3.307	13283.33	1.430	7479.57	2.373	11634.29	1.123	958.70
105	ZZZZZZ	6962.706	1898713.82	26.907	112650.38	54.963	261613.36	105.290	485371.33	14.271	12062.49
106	ZZZZZZ	6913.213	1896703.62	26.631	110347.93	56.899	265306.11	109.249	493371.54	14.708	12177.56
107	CCV	466.398	101236.82	9.895	38720.18	47.810	219269.44	100.047	444246.10	9.304	7579.12
108	CCB	3.197	858.74	-0.001	438.34	-0.004	612.25	0.250	1667.89	0.014	22.33
109	ZZZZZZ	5704.319	1481700.34	15.920	64199.70	7.296	34349.05	10.816	49103.23	9.368	7700.51
110	1111162-2 10X	3914.696	959074.57	19.572	79586.87	4.390	20771.03	6.129	27917.25	4.050	3308.35
111	1111162-3 10X	4107.292	1012527.07	19.233	79424.82	4.759	22603.37	6.353	29081.48	3.857	3170.99
112	1111162-4 10X	3199.025	784480.46	44.008	174000.09	1.826	9378.35	3.425	16505.10	2.421	2057.81
113	1111162-5 10X	2607.390	632723.26	40.830	161664.50	1.750	8904.72	2.892	13876.04	2.655	2226.83
114	1111162-6 10X	3725.400	910879.28	52.178	209357.90	3.856	18437.09	3.797	17676.37	5.128	4211.56
115	1111162-7 10X	3182.581	765156.79	66.513	264025.44	1.852	9334.98	2.572	12361.47	2.805	2339.51
116	1111162-8 10X	2913.993	697641.03	10.936	43935.06	3.701	17602.86	5.543	25283.01	3.778	3085.31
117	1111162-9 10X	4352.404	1080023.89	13.913	56104.00	5.275	24737.52	7.660	34586.52	4.134	3366.02
118	1111162-10 10X	2906.699	680867.10	20.269	79497.46	3.034	14274.10	4.067	18382.66	2.422	1944.12
119	CCV	453.340	99668.23	10.083	38797.03	47.923	219569.69	99.829	442860.40	9.227	7510.42
120	CCB	2.248	663.38	0.009	487.01	-0.035	501.13	0.176	1420.08	0.011	20.67
121	1111162-11 10X	3346.166	800941.89	9.561	38407.48	3.753	17984.37	4.705	21741.26	3.421	2816.59
122	1111162-12 10X	4672.003	1183917.48	12.560	51939.27	5.334	25177.05	6.585	30034.36	3.595	2949.28
123	1111162-13 10X	7359.554	2007545.96	19.183	77874.52	9.167	43343.53	11.945	54610.60	5.719	4745.05
124	1111162-14 10X	7364.231	1954807.99	18.866	75318.87	9.361	43292.20	12.760	57037.64	6.006	4876.08

533 of 618

Batch Summary Report

Analyte Table

	Sample Name	27 Al [1]		51 V [1]		52 Cr [1]		63 Cu [1]		75 As [1]	
		Conc. [ppb]	CPS	Conc. [ppb]	CPS						
125	1111162-15 10X	4109.254	995101.00	25.261	103959.72	4.285	20483.97	6.266	28782.11	3.696	3048.63
126	1110371-1 50X	2.154	6988.39	-0.073	2214.16	0.181	1518.98	0.528	3069.22	71.108	58033.85
127	1111008-1 50X	3043.040	714713.79	6.371	25002.44	4.239	19953.28	5.391	24481.77	1.505	1230.05
128	1111008-2 50X	4.533	11154.17	-0.047	2905.94	0.189	1586.77	0.532	3148.13	60.673	50511.05
129	CCV	459.997	99171.38	9.998	38537.10	47.475	216501.01	100.192	442365.77	9.217	7466.73
130	CCB	0.778	373.35	-0.030	347.34	-0.051	418.90	0.093	1046.71	0.020	27.00
131	1110371-1 50X	1.456	543.37	0.022	540.34	0.098	1110.05	0.310	2051.27	0.176	153.33
132	1111008-1 50X	10.902	2426.47	0.084	764.02	0.586	3263.69	0.316	2053.50	1.287	1028.04
133	1111008-2 50X	3.535	947.77	0.027	565.34	0.201	1524.54	0.357	2179.07	0.230	189.00
134	EX111117-4MB...	0.616	386.69	-0.048	304.33	-0.038	513.35	0.076	1057.83	-0.007	7.67
135	EX111117-4RV...	4.628	1153.43	0.064	692.35	0.427	2491.33	1.042	5031.96	0.099	88.33
136	EX111117-4LCS...	439.183	96000.53	9.515	37378.49	46.982	216448.39	97.362	434265.05	8.983	7351.01
137	1111165-21 200X	13.861	4170.75	0.033	717.69	0.121	1221.17	0.129	1267.85	1.463	1184.72
138	1111165-21D 2...	14.568	4290.79	0.020	660.02	0.111	1163.39	0.101	1137.83	1.457	1167.71
139	1111165-21L 1...	6.978	1706.84	-0.001	470.68	0.002	652.25	0.063	937.82	0.286	231.33
140	1111165-21MS ...	31.340	8752.65	0.412	2392.85	2.476	11646.47	4.999	22192.98	1.882	1496.74
141	CCV	451.551	96898.26	9.878	37892.99	47.275	213724.61	99.024	433445.10	9.180	7372.35
142	CCB	0.521	326.69	-0.011	413.01	-0.040	462.24	0.091	1023.38	-0.002	10.33
143	1111165-21MSD...	31.790	9046.19	0.438	2569.88	2.350	11317.33	4.847	21983.84	1.845	1498.41
144	1111165-22 200X	9.207	2646.99	-0.002	535.34	0.024	791.14	0.092	1117.84	0.939	771.02
145	1111167-11 200X	14.999	4280.78	0.020	644.35	0.115	1194.51	0.057	956.71	1.318	1069.71
146	1111167-12 200X	16.081	4647.52	0.040	740.69	0.120	1202.28	0.054	931.15	1.465	1172.05
147	1111167-13 200X	13.491	3777.26	0.018	619.68	0.109	1140.06	0.042	867.81	1.319	1043.71
148	IP111117-2MB ...	0.081	233.35	-0.024	354.34	-0.035	472.24	0.100	1040.05	0.000	11.33
149	CCV	466.361	98216.39	9.705	38067.04	47.429	213846.09	99.821	435755.31	9.125	7309.32
150	CCB	-0.124	196.68	-0.013	385.68	-0.027	512.24	0.107	1078.94	0.180	141.42

Batch Summary Report

Analyte Table

	Sample Name	78 Se [1]		98 Mo [1]		109 Ag [1]		111 Cd [1]		121 Sb [1]	
		Conc. [ppb]	CPS	Conc. [ppb]	CPS	Conc. [ppb]	CPS	Conc. [ppb]	CPS	Conc. [ppb]	CPS
1	blank		6.40		28.89		7.78		6.00		20.00
2	blank	-0.021	4.93	-0.002	30.00	-0.001	2.22	-0.003	2.67	-0.001	16.67
3	blank	0.000	7.33	0.000	42.22	0.000	7.78	0.000	7.99	0.000	22.22
4	H/1000	0.085	19.07	0.092	606.69	0.010	102.22	0.031	71.93	0.033	291.12
5	H/100	1.016	146.27	0.958	6186.84	0.103	1026.71	0.288	634.60	0.296	2589.14
6	H/10	9.793	1303.65	9.481	59257.31	0.972	9394.03	3.060	6566.19	2.912	24902.21
7	HIGH	100.021	12967.82	100.052	612119.47	10.003	94630.95	29.994	64749.66	30.009	258262.37
8	ICV	20.456	2829.99	19.486	126937.58	2.033	20477.87	6.132	13986.12	5.940	54013.62
9	ICB	-0.006	6.80	0.012	108.89	0.000	10.00	-0.001	6.65	0.003	50.00
10	CR11	0.105	22.53	0.097	662.25	0.010	103.34	0.027	67.25	0.030	290.01
11	CR12	0.209	36.40	0.198	1297.85	0.023	231.12	0.062	144.51	0.067	606.69
12	ICSA	-0.002	8.27	188.121	1218799.15	0.010	105.56	-0.007	-7.36	0.052	497.79
13	ICSAB	9.972	1357.26	200.733	1282042.24	0.997	9855.43	3.035	6769.15	3.054	27135.84
14	IP1111116-5MB ...	-0.008	6.67	0.032	228.90	0.000	5.55	-0.001	5.97	0.004	54.45
15	IM1111116-5LCS...	9.838	1310.19	9.372	58581.56	0.979	9462.96	3.054	6507.58	2.991	25399.62
16	1111041-23 10X	-0.010	6.40	0.082	516.68	0.001	14.44	-0.002	4.60	0.009	94.45
17	1111067-35 10X	-0.003	7.20	0.011	106.67	0.000	5.56	-0.002	3.99	0.005	60.00
18	1111086-38 10X	-0.012	6.27	0.015	131.12	0.000	7.78	-0.004	1.32	0.004	57.78
19	1111037-3 10X	-0.008	7.20	0.025	202.23	0.000	11.11	-0.001	7.31	0.020	197.78
20	CCV	9.928	1331.39	9.607	60502.97	0.994	9679.76	3.074	6686.76	2.966	25703.42
21	CCB	0.003	7.87	0.017	136.67	0.001	16.67	-0.003	3.31	0.002	41.11
22	1111037-3D 10X	-0.018	5.87	0.024	195.56	0.000	10.00	-0.003	2.64	0.005	65.56
23	1111037-3L 50X	-0.018	5.73	0.011	111.11	0.001	17.78	-0.001	7.99	0.005	66.67
24	1111037-3MS 10X	10.165	1350.86	9.740	60776.18	1.001	9661.95	3.075	6698.07	3.019	26203.13
25	1111037-3MSD ...	10.289	1370.06	9.776	61128.71	1.006	9732.02	3.088	6702.68	3.016	26088.57
26	1111038-1 10X	0.102	20.93	0.859	5188.70	0.000	10.00	0.001	11.37	0.033	301.12
27	1111038-2 10X	0.097	20.67	0.927	5723.32	0.001	15.56	-0.001	6.63	0.029	278.90
28	1111040-1 10X	0.709	82.80	7.475	37926.18	0.009	76.67	0.113	220.71	0.144	1105.61
29	1111040-3 10X	0.956	96.67	1.531	6898.26	0.003	25.56	0.101	175.82	0.040	288.90
30	1111040-4 10X	0.643	67.20	0.215	1002.27	0.004	35.55	0.008	21.21	0.046	328.90
31	1111040-5 10X	0.910	92.67	0.629	2862.52	0.003	28.89	0.096	173.65	0.219	1532.32

535 of 618

Batch Summary Report

Analyte Table

	Sample Name	78 Se [1]		98 Mo [1]		109 Ag [1]		111 Cd [1]		121 Sb [1]	
		Conc. [ppb]	CPS	Conc. [ppb]	CPS	Conc. [ppb]	CPS	Conc. [ppb]	CPS	Conc. [ppb]	CPS
32	CCV	10.508	1398.46	9.804	61288.09	1.000	9665.31	3.071	6823.37	2.961	26219.87
33	CCB	0.056	14.13	0.049	318.90	0.007	71.11	0.002	11.30	0.012	118.89
34	1111078-35 10X	0.018	10.40	0.252	1568.99	0.002	26.67	0.002	14.48	0.029	276.67
35	1111040-7 10X	0.772	81.60	7.286	33742.38	0.004	33.33	0.088	157.22	0.150	1044.50
36	1111051-1 10X	0.797	78.80	0.162	733.37	0.003	28.89	0.007	17.91	0.011	90.00
37	1111051-2 10X	0.863	86.13	0.159	734.47	0.001	12.22	0.009	21.25	0.012	96.67
38	CCV	10.667	1320.99	9.823	57124.06	0.988	8883.73	3.000	6274.33	2.921	24350.12
39	CCB	0.012	8.53	0.008	84.45	0.000	10.00	0.002	11.32	0.002	35.56
40	IP111116-4MB ...	0.010	8.27	-0.001	37.78	0.001	14.45	-0.002	3.33	0.003	45.56
41	IM111116-4RVS...	0.121	20.53	0.097	547.79	0.010	87.78	0.029	61.93	0.025	203.34
42	IM111116-4LCS...	10.200	1187.78	9.121	49882.22	0.950	8034.36	2.887	5632.31	2.836	22045.69
43	1111137-1 10X	0.088	17.33	0.021	156.67	0.003	30.00	0.105	208.36	0.002	35.55
44	1111138-1 10X	0.072	15.73	0.053	334.45	0.001	14.44	-0.002	4.62	0.018	164.45
45	1111140-1 10X	0.005	7.60	0.007	77.78	0.000	11.11	-0.003	2.66	0.005	57.78
46	1111160-1 10X	0.576	70.67	0.832	4394.01	0.046	381.12	0.177	338.81	0.203	1535.65
47	1111162-16 10X	0.055	12.80	0.139	748.92	0.002	22.22	0.005	17.24	0.024	200.00
48	1111185-13 10X	0.418	52.40	0.469	2452.45	0.000	8.89	-0.002	3.70	0.132	998.93
49	1111185-13D 10X	0.390	49.60	0.481	2522.46	0.000	8.89	0.000	7.69	0.127	957.82
50	CCV	10.591	1158.32	9.676	49707.12	1.008	8006.58	3.121	5606.97	3.062	21925.51
51	CCB	0.016	7.60	0.010	82.22	0.001	12.22	-0.003	1.32	-0.001	14.44
52	1111185-13L 50X	0.106	17.33	0.086	456.68	0.001	12.22	-0.002	3.94	0.024	182.23
53	1111185-13MS ...	10.049	1085.51	9.794	49682.66	1.002	7858.73	2.949	5315.54	3.095	22238.21
54	1111185-13MSD...	9.925	1097.11	9.732	50511.85	0.987	7920.98	2.952	5490.84	2.986	22119.06
55	1111205-1 10X	0.111	17.87	0.884	4316.21	0.001	14.44	0.012	28.81	0.030	237.79
56	1111205-2 10X	0.153	23.07	0.954	4863.03	0.002	21.11	0.010	26.07	0.028	232.23
57	IP111117-3MB ...	0.000	6.93	0.003	57.78	0.000	11.11	0.000	7.99	0.002	35.55
58	IP111117-3LCS...	9.849	1122.17	9.365	50101.76	0.983	8131.07	3.030	5732.30	2.729	20566.97
59	1111005-1 10X	0.176	26.40	0.303	1624.55	0.052	426.68	0.020	45.14	0.267	2015.71
60	1111005-2 10X	0.224	31.73	0.303	1616.78	0.066	541.13	0.055	111.14	0.316	2373.58
61	1111005-2D 10X	0.283	38.27	0.274	1471.20	0.069	564.46	0.044	88.49	0.314	2330.22
62	CCV	10.098	1119.11	9.693	50439.43	1.006	8093.28	3.043	5584.21	2.955	21599.48

536 of 618

Batch Summary Report

Analyte Table

	Sample Name	78 Se [1]		98 Mo [1]		109 Ag [1]		111 Cd [1]		121 Sb [1]	
		Conc. [ppb]	CPS	Conc. [ppb]	CPS	Conc. [ppb]	CPS	Conc. [ppb]	CPS	Conc. [ppb]	CPS
63	CCB	0.001	6.27	0.001	41.11	0.001	13.33	0.001	7.99	0.002	33.33
64	1111005-2L 50X	0.055	12.67	0.063	357.79	0.016	131.11	0.009	23.29	0.060	451.13
65	1111005-2MS 10X	10.120	1078.97	10.210	51113.73	1.097	8491.29	3.202	5729.52	3.421	24374.64
66	1111005-2MSD ...	10.446	1132.57	10.257	52237.38	1.092	8596.89	3.282	5940.13	3.337	24067.57
67	1111005-3 10X	0.746	88.13	0.885	4591.84	0.072	577.80	0.097	182.77	0.399	2900.31
68	1111005-4 10X	0.384	48.00	0.237	1238.95	0.102	804.48	0.059	114.52	0.268	1961.26
69	1111005-5 10X	0.319	40.67	0.426	2183.51	0.144	1127.84	0.055	107.73	0.347	2545.80
70	1111005-6 10X	0.573	68.00	0.797	4066.13	0.146	1147.84	0.144	266.17	1.023	7331.83
71	CCV	10.060	1068.71	9.690	48341.97	1.005	7755.34	3.089	5455.09	2.995	21071.03
72	CCB	0.001	6.13	0.007	68.89	0.001	16.67	-0.003	2.66	0.004	41.11
73	IP111117-1MB ...	0.014	7.60	-0.001	30.00	-0.001	2.22	-0.001	4.66	0.002	34.44
74	IM111117-1RVS...	0.109	16.93	0.092	464.46	0.011	85.56	0.034	61.94	0.027	196.67
75	IM111117-1LCS...	10.093	1067.64	9.367	46533.20	1.025	7874.29	3.060	5369.28	2.642	18475.46
76	1111160-2 10X	2.315	252.53	0.560	2848.08	0.054	422.23	0.157	285.66	0.140	1010.05
77	1111160-2D 10X	2.363	253.47	0.524	2619.15	0.057	443.35	0.162	297.02	0.103	754.48
78	1111160-2L 50X	0.469	56.27	0.121	641.13	0.013	105.56	0.030	59.92	0.037	284.45
79	1111160-2MS 10X	11.300	1203.51	7.363	36859.24	1.106	8551.32	3.269	5829.95	0.888	6325.80
80	1111160-2MSD ...	10.957	1163.77	7.083	35355.90	1.029	7937.65	3.129	5556.05	0.870	6173.53
81	1111160-2A 10X	6.662	708.95	2.501	12487.26	2.034	15654.56	2.157	3817.64	2.091	14740.40
82	1111160-3 10X	0.714	80.93	0.827	4099.47	0.071	548.91	0.174	312.18	0.142	1008.94
83	CCV	10.002	1026.57	9.795	47218.58	1.009	7524.10	3.069	5242.49	3.035	20669.31
84	CCB	-0.005	5.47	0.009	75.56	0.002	17.78	-0.001	5.32	0.008	70.00
85	ZZZZZ	0.671	78.00	0.503	2560.25	0.075	584.47	0.163	297.70	0.108	785.59
86	ZZZZZ	0.784	90.13	0.744	3772.72	0.087	686.69	0.186	336.88	0.139	1006.72
87	ZZZZZ	10.880	1161.37	0.219	1134.50	0.034	273.34	0.037	73.19	0.035	266.67
88	ZZZZZ	10.324	1076.04	0.795	3923.88	0.051	394.46	0.112	202.85	0.082	590.02
89	ZZZZZ	7.762	808.82	0.608	3005.88	0.053	408.90	0.143	252.97	0.081	576.69
90	ZZZZZ	8.528	885.63	0.739	3634.91	0.030	232.23	0.030	58.22	0.035	258.89
91	ZZZZZ	7.749	813.49	1.185	5865.60	0.042	322.23	0.203	355.30	0.036	267.78
92	ZZZZZ	8.154	846.16	1.151	5632.19	0.027	212.23	0.065	119.31	0.037	275.56
93	ZZZZZ	8.026	829.49	1.524	7412.90	0.043	330.01	0.045	84.43	0.054	387.79

537 of 618

Batch Summary Report

Analyte Table

	Sample Name	78 Se [1]		98 Mo [1]		109 Ag [1]		111 Cd [1]		121 Sb [1]	
		Conc. [ppb]	CPS	Conc. [ppb]	CPS	Conc. [ppb]	CPS	Conc. [ppb]	CPS	Conc. [ppb]	CPS
94	ZZZZZ	7.276	758.55	0.260	1306.74	0.031	237.79	0.028	51.84	0.020	154.45
95	CCV	9.998	1049.90	9.719	47906.13	0.998	7614.17	3.128	5513.16	2.959	20783.90
96	CCB	0.028	8.67	0.004	54.45	0.001	11.11	-0.002	3.33	0.003	37.78
97	ZZZZZ	6.652	691.35	0.606	2984.77	0.491	3701.60	4.683	8237.17	0.449	3170.37
98	ZZZZZ	1.729	186.67	0.558	2780.28	0.068	521.13	0.253	450.34	0.134	950.04
99	ZZZZZ	0.002	6.13	-0.003	22.22	0.002	18.89	0.103	165.33	0.002	31.11
100	IM111117-2RVS...	0.082	13.87	0.095	466.68	0.009	66.67	0.025	45.94	0.032	221.12
101	IM111117-2LCS...	9.797	994.83	9.314	44412.68	1.005	7406.30	3.155	5295.51	2.829	18924.96
102	ZZZZZ	1.279	135.47	0.796	3829.40	0.048	363.35	0.084	149.54	0.184	1257.85
103	ZZZZZ	1.273	135.87	0.785	3804.95	0.058	434.46	0.099	176.87	0.193	1335.64
104	ZZZZZ	0.222	29.87	0.163	841.15	0.010	86.67	0.017	37.23	0.046	337.79
105	ZZZZZ	10.199	1076.44	8.855	43884.78	1.025	7856.51	3.212	5601.02	1.515	10539.22
106	ZZZZZ	10.594	1094.84	9.163	44484.21	1.077	8085.51	3.199	5508.91	1.576	10825.00
107	CCV	10.003	1016.97	9.675	46178.76	1.000	7377.39	2.975	5025.21	2.968	19987.36
108	CCB	-0.009	4.93	0.016	101.11	0.000	6.67	0.000	6.66	0.007	61.11
109	ZZZZZ	5.288	545.34	2.614	12616.24	1.969	14655.85	1.993	3399.52	2.087	14188.78
110	1111162-2 10X	2.751	284.40	0.820	3949.44	0.031	236.67	0.073	131.52	0.115	796.70
111	1111162-3 10X	2.611	272.13	0.817	3959.44	0.031	238.89	0.074	133.52	0.116	807.81
112	1111162-4 10X	10.095	1065.11	1.877	9330.61	0.029	230.00	0.039	74.20	0.055	402.23
113	1111162-5 10X	20.245	2102.67	0.844	4165.05	0.023	182.23	0.046	86.82	0.058	416.68
114	1111162-6 10X	21.786	2221.75	7.747	37237.93	0.030	228.90	0.031	60.79	0.089	621.14
115	1111162-7 10X	13.558	1403.13	1.060	5194.25	0.021	161.12	0.036	68.70	0.044	317.79
116	1111162-8 10X	0.652	72.00	0.482	2334.65	0.029	222.23	0.055	99.72	0.099	681.14
117	1111162-9 10X	1.085	115.60	0.530	2559.13	0.044	326.68	0.102	176.36	0.123	840.04
118	1111162-10 10X	2.310	234.93	0.364	1737.90	0.024	181.11	0.052	95.12	0.158	1090.06
119	CCV	9.788	994.30	9.673	46120.97	1.003	7397.38	3.044	5067.23	3.018	20018.54
120	CCB	-0.018	4.27	0.009	74.44	0.000	8.89	-0.002	3.32	0.003	37.78
121	1111162-11 10X	0.444	51.60	0.308	1517.87	0.020	157.78	0.055	100.48	0.095	664.47
122	1111162-12 10X	0.927	100.40	0.305	1494.54	0.026	195.56	0.079	139.82	0.112	776.70
123	1111162-13 10X	0.744	82.93	0.512	2522.46	0.058	438.90	0.108	189.69	0.176	1207.85
124	1111162-14 10X	0.666	73.20	0.567	2726.95	0.056	420.01	0.127	221.66	0.192	1312.30

538 of 618

Batch Summary Report

Analyte Table

	Sample Name	78 Se [1]		98 Mo [1]		109 Ag [1]		111 Cd [1]		121 Sb [1]	
		Conc. [ppb]	CPS	Conc. [ppb]	CPS	Conc. [ppb]	CPS	Conc. [ppb]	CPS	Conc. [ppb]	CPS
125	1111162-15 10X	2.926	304.93	1.705	8245.56	0.036	271.12	0.063	112.99	0.102	700.03
126	1110371-1 50X	36.235	3678.95	1.370	6589.23	0.003	31.11	-0.001	5.19	0.094	635.58
127	1111008-1 50X	0.082	14.53	0.382	1849.02	0.013	100.00	0.047	85.78	0.078	537.80
128	1111008-2 50X	30.013	3109.10	1.582	7756.42	0.001	16.67	0.002	11.05	0.117	795.59
129	CCV	9.863	996.97	9.658	45827.84	1.008	7397.38	3.155	5231.98	3.012	19910.58
130	CCB	0.004	6.13	0.007	63.33	0.001	15.56	-0.003	1.99	0.003	37.78
131	1110371-1 50X	0.012	7.33	1.129	5315.40	0.010	76.67	0.006	16.68	0.088	575.58
132	1111008-1 50X	0.009	7.07	0.511	2399.11	0.013	96.67	0.008	19.71	0.075	496.68
133	1111008-2 50X	0.005	6.40	1.351	6140.17	0.008	58.89	0.013	27.92	0.119	780.03
134	EX111117-4MB...	-0.016	4.67	-0.004	17.78	0.000	7.78	-0.003	2.00	0.001	27.78
135	EX111117-4RV...	0.090	14.53	0.083	408.90	0.010	74.44	0.030	53.28	0.034	231.12
136	EX111117-4LCS...	9.495	970.03	9.370	44919.81	0.977	7246.20	3.118	5274.78	2.879	19407.74
137	1111165-21 200X	0.663	72.13	0.073	377.79	0.001	12.22	-0.001	4.62	0.022	165.56
138	1111165-21D 2...	0.599	65.20	0.006	61.11	0.001	14.44	-0.003	1.32	0.022	163.34
139	1111165-21L 1...	0.145	19.73	0.009	72.22	0.000	3.33	0.000	6.66	0.008	68.89
140	1111165-21MS ...	1.006	104.80	0.452	2123.51	0.045	331.12	0.159	268.41	0.145	967.82
141	CCV	9.745	976.43	9.571	45031.12	1.003	7296.23	3.104	5084.03	3.079	20100.84
142	CCB	-0.018	4.13	0.012	86.67	0.001	13.33	-0.003	2.66	0.002	32.22
143	1111165-21MSD...	1.012	107.47	0.454	2181.29	0.049	366.68	0.145	243.73	0.149	990.05
144	1111165-22 200X	0.314	37.87	0.006	62.22	0.001	13.33	-0.003	2.66	0.012	100.00
145	1111167-11 200X	0.544	60.53	-0.001	30.00	0.000	5.55	-0.001	5.33	0.012	95.56
146	1111167-12 200X	0.610	66.13	0.000	34.44	0.001	13.33	-0.002	3.33	0.012	97.78
147	1111167-13 200X	0.513	58.00	-0.001	28.89	0.000	7.78	-0.001	4.67	0.013	103.34
148	IP111117-2MB ...	-0.002	5.47	-0.005	12.22	0.000	5.56	-0.001	4.67	-0.001	14.44
149	CCV	10.080	1006.83	9.684	45445.68	0.991	7191.74	3.080	5057.98	3.004	19659.18
150	CCB	0.084	13.20	0.004	50.00	0.000	8.89	0.000	5.99	0.003	34.45

Batch Summary Report

Analyte Table

	Sample Name	137 Ba [1]		205 Tl [1]		206 (Pb) [1]		207 (Pb) [1]		208 Pb [1]	
		Conc. [ppb]	CPS	Conc. [ppb]	CPS	Conc. [ppb]	CPS	Conc. [ppb]	CPS	Conc. [ppb]	CPS
1	blank		30.00		19.05		103.34		126.67		583.37
2	blank	-0.016	56.67	0.000	22.38	-0.010	123.34	0.019	216.68	0.003	703.39
3	blank	0.000	96.68	0.000	17.62	0.000	186.68	0.000	116.68	0.000	633.38
4	H/1000	0.107	390.03	0.002	53.81	0.053	566.71	0.055	446.70	0.053	2116.85
5	H/100	0.964	2830.39	0.021	385.72	0.542	4160.79	0.486	3097.14	0.510	15167.11
6	H/10	10.041	28006.46	0.203	3485.19	5.172	36807.35	5.057	30034.88	5.137	141814.14
7	HIGH	99.996	279979.16	2.000	34405.98	49.982	357179.04	49.994	298535.83	49.986	1386370.75
8	ICV	19.736	58444.80	0.426	7518.62	10.068	73839.91	10.408	63745.75	10.168	289362.24
9	ICB	-0.004	90.01	0.008	136.19	-0.007	143.34	0.006	146.68	0.003	710.05
10	CRI1	0.097	386.69	0.024	430.49	0.051	570.04	0.046	403.36	0.052	2140.18
11	CRI2	0.276	893.41	0.043	769.07	0.093	890.07	0.094	703.39	0.104	3640.37
12	ICSA	0.041	236.68	0.004	94.29	-0.001	206.68	0.003	153.34	0.003	810.05
13	ICSAB	10.180	29505.89	0.209	3622.37	5.190	37338.80	5.338	32062.74	5.271	147118.17
14	IP111116-5MB ...	-0.027	30.00	0.003	67.14	-0.008	140.01	-0.002	106.67	-0.007	466.69
15	IM111116-5LCS...	9.850	27285.21	0.209	3559.97	5.021	35587.45	5.085	30071.88	5.101	140257.20
16	1111041-23 10X	0.049	226.68	0.009	165.72	0.000	190.01	0.012	186.68	0.010	890.05
17	1111067-35 10X	-0.008	80.00	0.005	93.34	-0.014	96.67	-0.002	106.67	-0.007	476.70
18	1111086-38 10X	-0.003	93.34	0.003	70.48	-0.014	96.67	0.002	133.34	-0.008	463.36
19	1111037-3 10X	23.090	65302.29	0.006	126.19	-0.011	130.01	-0.002	120.01	-0.001	680.05
20	CCV	9.949	28129.80	0.203	3518.53	4.961	35704.35	5.050	30329.02	5.037	140613.79
21	CCB	0.007	116.67	0.008	139.52	-0.006	146.68	0.002	123.34	0.000	620.04
22	1111037-3D 10X	14.806	42042.31	0.003	70.00	-0.006	170.01	-0.006	96.67	-0.006	563.36
23	1111037-3L 50X	2.845	8069.17	0.002	54.76	-0.007	153.34	-0.001	120.01	-0.003	620.05
24	1111037-3MS 10X	24.864	70217.92	0.216	3712.39	5.166	36887.64	5.011	29874.65	5.161	142977.00
25	1111037-3MSD ...	25.189	70900.09	0.212	3658.57	5.290	37926.64	5.189	31044.03	5.237	145657.62
26	1111038-1 10X	2641.086	7257833.85	0.024	403.34	0.034	416.69	0.030	286.69	0.037	1606.79
27	1111038-2 10X	2041.067	5759369.71	0.010	174.77	0.035	420.03	0.041	343.35	0.046	1826.83
28	1111040-1 10X	3145.669	7693194.68	1.893	23493.36	1.617	8476.20	1.652	7205.43	1.636	33222.84
29	1111040-3 10X	2578.179	5598529.50	2.741	28989.74	0.501	2326.98	0.499	1913.57	0.486	8724.77
30	1111040-4 10X	20274.766	44230689.34	3.600	36214.02	0.431	1923.56	0.450	1646.85	0.430	7394.42
31	1111040-5 10X	11044.553	24757790.47	0.976	10005.35	0.095	526.70	0.129	536.71	0.122	2433.54

540 of 618

Batch Summary Report

Analyte Table

	Sample Name	137 Ba [1]		205 Tl [1]		206 (Pb) [1]		207 (Pb) [1]		208 Pb [1]	
		Conc. [ppb]	CPS	Conc. [ppb]	CPS	Conc. [ppb]	CPS	Conc. [ppb]	CPS	Conc. [ppb]	CPS
32	CCV	10.093	29142.08	0.211	3352.78	5.205	34301.35	5.162	28388.39	5.233	133768.70
33	CCB	0.290	830.08	0.019	288.10	0.041	413.36	0.032	266.69	0.037	1436.77
34	1111078-35 10X	13.884	39398.26	0.009	152.86	0.870	4587.61	0.671	3797.32	0.663	17538.19
35	1111040-7 10X	2938.517	6519838.44	1.868	21292.46	1.701	8182.64	1.608	6448.38	1.648	30743.75
36	1111051-1 10X	12185.105	25909042.11	0.696	6990.74	0.045	310.02	0.055	266.68	0.049	1200.08
37	1111051-2 10X	12355.216	26343506.28	0.715	6970.24	0.035	260.01	0.057	266.68	0.056	1286.76
38	CCV	10.546	28667.62	0.209	3184.65	5.061	31989.28	5.028	26524.87	5.054	123890.53
39	CCB	0.434	1156.76	0.007	114.76	-0.002	160.01	0.018	196.68	0.010	813.39
40	IP111116-4MB ...	0.528	1390.14	0.004	68.57	0.004	196.68	0.007	140.01	0.007	746.72
41	IM111116-4RVS...	0.582	1493.48	0.023	338.58	0.056	496.71	0.043	320.02	0.053	1790.15
42	IM111116-4LCS...	9.781	24804.08	0.198	2938.88	5.013	30920.19	4.840	24905.60	4.917	117637.58
43	1111137-1 10X	19.312	48955.19	0.007	120.95	0.018	290.02	0.017	200.01	0.020	1100.09
44	1111138-1 10X	41.086	103438.14	0.014	227.88	0.226	1576.83	0.267	1493.48	0.249	6594.21
45	1111140-1 10X	5.214	12739.24	0.002	49.52	0.082	676.71	0.104	640.05	0.089	2703.57
46	1111160-1 10X	108.281	263209.77	0.141	2186.37	15.811	101066.40	15.576	83185.54	15.620	387512.39
47	1111162-16 10X	8.539	20521.08	0.012	194.32	0.264	1836.89	0.270	1523.50	0.253	6770.95
48	1111185-13 10X	4.325	10534.10	0.002	50.00	0.005	206.68	-0.001	106.67	0.005	723.38
49	1111185-13D 10X	4.244	10263.94	0.002	51.90	0.003	196.68	0.013	180.01	0.015	960.07
50	CCV	10.673	24917.67	0.205	3026.52	5.087	31224.43	5.155	26401.33	5.121	121934.40
51	CCB	0.014	110.01	0.008	120.00	-0.009	110.01	0.015	166.68	0.010	766.72
52	1111185-13L 50X	0.853	1986.88	0.005	80.00	-0.004	146.68	0.014	176.68	0.006	723.38
53	1111185-13MS ...	13.865	32464.95	0.203	2987.94	5.063	30916.86	5.031	25636.74	5.039	119372.58
54	1111185-13MSD...	13.776	33280.35	0.205	3097.96	4.829	30322.22	5.001	26197.70	4.912	119630.31
55	1111205-1 10X	1.764	4174.11	0.009	134.76	0.012	220.01	0.037	260.02	0.023	1003.40
56	1111205-2 10X	1.763	4334.14	0.006	94.76	0.009	206.68	0.016	173.35	0.018	916.73
57	IP111117-3MB ...	0.000	93.34	0.002	50.95	0.003	193.34	-0.001	103.34	0.011	856.73
58	IP111117-3LCS...	10.520	25859.16	0.210	3237.04	5.224	33422.44	5.281	28191.52	5.287	131165.77
59	1111005-1 10X	351.215	853776.76	0.264	4051.06	6.605	42014.57	6.465	34344.60	6.516	160845.95
60	1111005-2 10X	411.424	996397.67	0.320	4804.14	8.233	51414.35	8.604	44853.15	8.380	202996.82
61	1111005-2D 10X	411.896	986338.74	0.309	4656.00	8.329	52059.89	8.528	44505.46	8.326	201925.24
62	CCV	10.333	24637.16	0.214	3197.04	5.144	31922.44	5.049	26147.73	5.143	123784.30

541 of 618

Batch Summary Report

Analyte Table

	Sample Name	137 Ba [1]		205 Tl [1]		206 (Pb) [1]		207 (Pb) [1]		208 Pb [1]	
		Conc. [ppb]	CPS	Conc. [ppb]	CPS	Conc. [ppb]	CPS	Conc. [ppb]	CPS	Conc. [ppb]	CPS
63	CCB	0.131	356.69	0.003	50.48	-0.002	153.34	0.016	180.01	0.008	736.71
64	1111005-2L 50X	81.542	189398.07	0.060	913.85	1.658	10430.88	1.770	9253.35	1.669	40680.16
65	1111005-2MS 10X	435.053	1007696.00	0.536	8019.36	13.285	82588.61	13.251	68791.29	13.335	321682.12
66	1111005-2MSD ...	421.403	987877.38	0.554	8162.77	13.557	82997.43	13.544	69263.98	13.634	323922.96
67	1111005-3 10X	413.908	970770.82	0.338	5076.61	9.824	61208.46	9.605	49975.82	9.760	235964.51
68	1111005-4 10X	359.432	845950.56	0.316	4716.02	7.742	48086.37	7.485	38792.22	7.515	181036.21
69	1111005-5 10X	358.729	849720.17	0.277	4151.08	8.048	49992.80	7.870	40824.35	7.970	192089.25
70	1111005-6 10X	522.488	1214027.74	0.526	7782.08	17.046	104661.16	16.504	84657.57	16.852	401540.71
71	CCV	10.681	24510.35	0.224	3337.54	5.139	31845.56	5.163	26681.90	5.128	123251.18
72	CCB	0.168	430.03	0.009	136.67	0.013	236.68	0.025	220.02	0.017	933.40
73	IP111117-1MB ...	0.138	373.36	0.004	71.91	-0.005	140.01	-0.006	76.67	0.001	596.70
74	IM111117-1RVS...	0.322	763.39	0.025	357.63	0.050	453.36	0.068	426.70	0.058	1853.48
75	IM111117-1LCS...	10.533	24019.65	0.223	3243.71	5.120	30973.70	5.291	26708.53	5.209	122224.94
76	1111160-2 10X	85.860	197192.22	0.192	3008.42	15.178	98186.60	12.120	65517.25	12.904	324065.03
77	1111160-2D 10X	84.421	195205.67	0.205	3225.61	15.183	98826.94	12.011	65346.50	12.846	324608.48
78	1111160-2L 50X	17.218	39679.07	0.053	822.41	3.101	19824.22	2.423	12943.00	2.629	65261.15
79	1111160-2MS 10X	98.942	228622.94	0.400	6422.85	20.535	136645.82	17.264	96003.79	18.119	468046.09
80	1111160-2MSD ...	98.758	227166.09	0.405	6338.54	20.048	130131.04	16.956	91961.02	17.720	446499.42
81	1111160-2A 10X	86.586	198376.67	0.301	4713.16	25.028	162292.46	21.986	119125.83	22.780	573441.24
82	1111160-3 10X	116.165	263425.10	0.249	4012.47	15.197	101277.91	14.566	81080.55	14.890	385092.13
83	CCV	10.499	23308.54	0.206	3083.20	5.070	31548.23	5.018	26071.02	5.030	121425.16
84	CCB	0.015	113.34	0.013	193.81	0.007	203.35	0.020	196.68	0.015	876.73
85	ZZZZZ	113.368	261112.47	0.224	3604.27	20.152	134284.05	19.352	107743.48	19.695	509364.08
86	ZZZZZ	126.003	289851.73	0.256	4171.08	16.384	110443.16	15.991	90028.76	16.222	424358.36
87	ZZZZZ	24.730	57019.30	0.098	1542.47	10.056	65332.93	6.435	34969.56	7.308	184440.36
88	ZZZZZ	55.395	125256.74	0.178	2755.04	24.944	159183.96	11.964	63840.07	14.995	371595.51
89	ZZZZZ	60.027	133505.27	0.186	2918.88	22.353	144809.66	11.996	64991.99	14.424	362880.93
90	ZZZZZ	12.506	27959.80	0.086	1310.07	25.802	160378.45	6.808	35440.44	11.157	269503.98
91	ZZZZZ	12.311	27421.97	0.090	1351.98	35.572	220791.16	16.024	83188.85	20.519	494643.54
92	ZZZZZ	12.080	27087.99	0.090	1340.55	31.072	189500.56	9.846	50250.77	14.595	345798.90
93	ZZZZZ	21.850	48831.94	0.127	1914.42	36.813	228000.95	10.432	54060.96	16.482	396524.97

542 of 618

Batch Summary Report

Analyte Table

	Sample Name	137 Ba [1]		205 Tl [1]		206 (Pb) [1]		207 (Pb) [1]		208 Pb [1]	
		Conc. [ppb]	CPS	Conc. [ppb]	CPS	Conc. [ppb]	CPS	Conc. [ppb]	CPS	Conc. [ppb]	CPS
94	ZZZZZ	17.854	39923.06	0.056	858.13	14.004	88190.68	8.072	42512.72	9.492	232195.79
95	CCV	10.077	23088.15	0.207	3099.87	5.154	32032.64	5.114	26518.33	5.095	122822.59
96	CCB	-0.025	30.00	0.011	163.34	0.009	216.68	0.011	156.67	0.013	856.72
97	ZZZZZ	43.904	100133.47	0.215	3589.98	445.657	3067520.06	418.847	2408939.39	424.896	11352013.73
98	ZZZZZ	102.821	232841.79	0.229	3611.42	26.697	174330.35	24.793	135251.01	25.386	643341.72
99	ZZZZZ	0.029	136.68	0.006	90.48	0.191	1216.79	0.194	993.43	0.188	4583.86
100	IM111117-2RVS...	0.167	423.36	0.024	334.77	0.131	880.07	0.095	536.71	0.120	3096.96
101	IM111117-2LCS...	10.239	22316.97	0.226	3300.87	5.077	30826.90	5.160	26137.43	5.126	120723.63
102	ZZZZZ	108.242	237180.66	0.180	2708.84	11.424	71187.02	10.698	55680.08	11.058	267376.77
103	ZZZZZ	108.611	240961.53	0.185	2831.71	11.615	73430.02	11.013	58156.71	11.217	275202.76
104	ZZZZZ	21.117	47323.65	0.038	593.35	2.338	14884.86	2.154	11421.62	2.242	55319.74
105	ZZZZZ	116.273	262658.88	0.370	5817.37	16.198	105671.54	15.329	83540.87	15.503	392528.15
106	ZZZZZ	117.987	263218.61	0.379	5901.68	16.229	104852.38	15.420	83218.80	15.746	394791.87
107	CCV	10.362	22754.24	0.210	3109.40	5.092	31331.09	5.067	26014.06	5.048	120498.29
108	CCB	0.024	126.67	0.008	128.57	0.012	226.68	0.016	173.35	0.017	916.73
109	ZZZZZ	105.610	233274.66	0.278	4265.40	20.967	133177.91	19.941	105833.02	20.407	503098.52
110	1111162-2 10X	65.020	143277.67	0.135	2033.49	10.542	65346.07	6.794	35220.07	7.764	186890.63
111	1111162-3 10X	65.884	146259.41	0.140	2107.31	10.322	64096.93	7.258	37675.86	7.910	190752.28
112	1111162-4 10X	17.495	39508.27	0.208	3152.26	26.951	168701.90	6.219	32603.91	10.992	267408.64
113	1111162-5 10X	16.003	35819.29	0.140	2146.36	20.421	129169.83	5.701	30205.49	8.984	220894.95
114	1111162-6 10X	24.414	54052.61	0.331	5035.17	33.685	212377.23	7.426	39213.64	13.362	327332.81
115	1111162-7 10X	15.647	34643.45	0.188	2790.28	27.874	171066.46	6.013	30920.28	10.956	261328.00
116	1111162-8 10X	60.195	130639.13	0.096	1438.18	6.804	42087.62	5.910	30532.88	6.192	148657.41
117	1111162-9 10X	77.730	168175.55	0.132	1980.62	9.309	57721.41	8.057	41733.83	8.282	199330.31
118	1111162-10 10X	37.860	83324.99	0.075	1122.43	7.282	44518.18	5.014	25626.65	5.613	133264.63
119	CCV	10.350	22393.78	0.209	3075.10	5.139	31404.90	5.171	26378.05	5.139	121870.62
120	CCB	0.015	110.01	0.009	132.86	0.003	176.68	0.013	163.34	0.012	803.39
121	1111162-11 10X	46.161	102411.37	0.086	1335.78	6.468	41121.89	5.945	31561.71	6.195	152825.43
122	1111162-12 10X	63.626	139443.42	0.101	1562.47	8.392	53371.46	7.593	40353.42	7.920	195486.03
123	1111162-13 10X	97.727	213986.00	0.189	2942.22	12.369	79586.03	11.984	64408.24	12.200	304605.09
124	1111162-14 10X	108.213	236714.52	0.193	2954.60	13.070	82631.71	12.414	65583.77	12.756	313047.13

543 of 618

Batch Summary Report

Analyte Table

	Sample Name	137 Ba [1]		205 Tl [1]		206 (Pb) [1]		207 (Pb) [1]		208 Pb [1]	
		Conc. [ppb]	CPS	Conc. [ppb]	CPS	Conc. [ppb]	CPS	Conc. [ppb]	CPS	Conc. [ppb]	CPS
125	1111162-15 10X	52.293	113484.65	0.145	2166.84	12.946	80125.56	7.253	37562.54	8.616	207173.01
126	11110371-1 50X	637.520	1361965.24	0.094	1400.08	501.607	3050591.72	566.643	2879964.23	542.136	12797814.81
127	1111008-1 50X	43.998	95373.67	0.052	774.31	3.643	22274.30	3.782	19287.09	3.779	89584.68
128	1111008-2 50X	770.819	1663288.88	0.110	1639.63	602.237	3699175.68	672.835	3453698.28	643.712	15347370.30
129	CCV	10.497	22627.54	0.210	3153.21	5.212	32510.58	5.191	27022.38	5.243	126854.71
130	CCB	0.218	506.70	0.008	129.53	0.152	1016.75	0.177	933.41	0.184	4567.21
131	11110371-1 50X	0.381	870.06	0.005	82.38	0.120	890.07	0.121	716.72	0.132	3647.04
132	1111008-1 50X	0.158	410.03	0.048	696.69	0.101	760.06	0.142	800.06	0.123	3370.34
133	1111008-2 50X	1.466	3133.81	0.003	50.95	0.094	710.05	0.112	646.72	0.102	2853.59
134	EX111117-4MB...	0.012	113.34	0.001	30.48	-0.001	173.34	0.016	193.34	0.012	883.39
135	EX111117-4RV...	0.098	280.01	0.023	325.25	0.058	486.70	0.069	426.70	0.069	2060.18
136	EX111117-4LCS...	9.997	21986.56	0.204	3019.85	5.010	30813.30	5.066	26007.31	5.055	120603.36
137	1111165-21 200X	2.414	5257.81	0.006	109.52	0.015	266.68	0.029	260.01	0.030	1296.75
138	1111165-21D 2...	2.230	4914.33	0.002	48.57	0.013	253.35	0.026	240.02	0.020	1066.75
139	1111165-21L 1...	0.479	1053.42	0.002	40.00	0.005	190.02	0.013	163.34	0.007	706.72
140	1111165-21MS ...	2.686	5794.72	0.010	162.38	0.237	1600.17	0.207	1143.44	0.235	6077.52
141	CCV	10.282	21899.70	0.208	2995.08	4.986	29804.65	5.201	25937.15	5.140	119166.16
142	CCB	-0.010	56.67	0.007	110.95	-0.005	133.34	0.007	133.34	0.006	670.05
143	1111165-21MSD...	2.740	5894.75	0.013	206.67	0.259	1743.53	0.265	1446.82	0.259	6684.33
144	1111165-22 200X	2.736	5924.75	0.002	43.81	0.005	203.35	0.003	126.68	0.007	756.72
145	1111167-11 200X	2.363	5137.76	0.002	50.48	-0.001	173.35	-0.003	96.67	0.002	643.37
146	1111167-12 200X	2.295	4904.39	0.001	33.33	-0.006	136.68	0.006	140.01	0.001	613.37
147	1111167-13 200X	2.952	6348.26	0.001	27.62	-0.005	143.35	0.000	106.67	0.000	576.70
148	IP111117-2MB ...	-0.015	46.67	0.001	23.81	-0.005	130.01	0.012	156.68	0.004	623.38
149	CCV	10.295	21983.02	0.211	3064.15	5.005	30215.68	5.155	25943.87	5.090	119089.28
150	CCB	-0.016	46.67	0.006	99.05	-0.010	106.67	0.004	120.01	0.004	623.37

Batch Summary Report

Analyte Table

	Sample Name	232 Th [1]		238 U [1]	
		Conc. [ppb]	CPS	Conc. [ppb]	CPS
1	blank		64.45		21.11
2	blank	0.000	50.00	0.000	4.44
3	blank	0.000	61.11	0.000	14.44
4	H/1000	0.007	243.34	0.015	382.23
5	H/100	0.063	1869.04	0.103	2753.63
6	H/10	0.921	25552.70	1.017	26243.64
7	HIGH	10.008	279596.08	9.998	260246.53
8	ICV	2.014	57690.76	2.073	55265.48
9	ICB	0.002	104.45	0.001	33.33
10	CR11	0.016	505.58	0.013	353.34
11	CR12	0.030	923.38	0.024	661.14
12	IGSA	0.020	654.47	0.004	125.56
13	ICSAB	1.056	29628.23	1.065	27789.87
14	IP111116-5MB ...	0.000	73.34	0.000	11.11
15	IM111116-5LCS...	0.948	26177.12	1.006	25864.08
16	1111041-23 10X	0.009	283.34	0.001	30.00
17	1111067-35 10X	0.002	117.78	0.001	31.11
18	1111086-38 10X	0.002	107.78	0.006	156.67
19	1111037-3 10X	0.001	104.45	0.022	587.80
20	CCV	0.940	26384.15	0.997	26033.35
21	CCB	0.010	316.68	0.000	22.22
22	1111037-3D 10X	0.006	230.01	0.022	590.02
23	1111037-3L 50X	0.003	143.34	0.004	124.45
24	1111037-3MS 10X	0.956	26610.10	1.057	27384.46
25	1111037-3MSD ...	0.988	27607.57	1.069	27791.02
26	1111038-1 10X	0.029	818.93	0.004	114.45
27	1111038-2 10X	0.011	333.34	0.004	114.44
28	1111040-1 10X	0.011	277.78	0.004	85.56
29	1111040-3 10X	0.007	158.89	0.006	98.90
30	1111040-4 10X	0.003	85.55	0.003	62.22
31	1111040-5 10X	0.003	94.45	0.003	52.22

545 of 618

Batch Summary Report

Analyte Table

	Sample Name	232 Th [1]		238 U [1]	
		Conc. [ppb]	CPS	Conc. [ppb]	CPS
32	CCV	0.961	24702.31	1.018	24339.28
33	CCB	0.028	897.81	0.003	74.45
34	1111078-35 10X	0.013	397.79	1.360	32550.78
35	1111040-7 10X	0.020	415.57	0.006	113.34
36	1111051-1 10X	0.007	155.56	0.004	73.33
37	1111051-2 10X	0.009	173.34	0.003	52.22
38	CCV	0.926	22800.31	0.990	22695.51
39	CCB	0.011	300.01	0.000	12.22
40	IP111116-4MB ...	0.004	152.22	0.000	23.33
41	IM111116-4RVS...	0.017	453.35	0.010	217.78
42	IM111116-4LCS...	0.896	21548.42	0.959	21433.69
43	1111137-1 10X	0.049	1233.48	0.062	1406.76
44	1111138-1 10X	0.006	206.67	0.005	120.00
45	1111140-1 10X	0.007	217.78	0.017	390.02
46	1111160-1 10X	2.578	64386.44	5.141	119571.16
47	1111162-16 10X	0.125	3123.73	0.366	8358.05
48	1111185-13 10X	0.010	303.34	0.337	7489.00
49	1111185-13D 10X	0.004	165.56	0.340	7583.47
50	CCV	0.940	22497.64	1.024	22802.36
51	CCB	0.012	308.90	0.000	18.89
52	1111185-13L 50X	0.004	147.78	0.066	1417.86
53	1111185-13MS ...	0.943	22452.03	1.321	29250.97
54	1111185-13MSD...	0.951	23275.53	1.310	29821.51
55	1111205-1 10X	0.021	493.35	0.273	5259.93
56	1111205-2 10X	0.008	232.23	0.281	5608.94
57	IP111117-3MB ...	-0.001	25.55	0.000	20.00
58	IP111117-3LCS...	0.983	24525.35	0.963	22336.24
59	1111005-1 10X	2.351	58304.30	0.838	19364.11
60	1111005-2 10X	2.951	71869.11	1.014	23009.34
61	1111005-2D 10X	2.813	68595.64	1.012	22980.41
62	CCV	0.983	23779.66	1.046	23533.56

546 of 618

Batch Summary Report

Analyte Table

	Sample Name	232 Th [1]		238 U [1]	
		Conc. [ppb]	CPS	Conc. [ppb]	CPS
63	CCB	-0.001	42.22	0.000	17.78
64	1111005-2L 50X	0.576	13990.26	0.202	4558.57
65	1111005-2MS 10X	3.856	93591.03	2.092	47318.06
66	1111005-2MSD ...	4.098	97951.94	2.007	44706.76
67	1111005-3 10X	3.619	87967.41	1.943	43984.81
68	1111005-4 10X	2.842	68786.61	3.288	74112.20
69	1111005-5 10X	2.661	64473.46	1.505	33944.78
70	1111005-6 10X	7.518	180276.74	2.519	56298.07
71	CCV	0.992	23954.41	1.038	23328.82
72	CCB	0.005	162.23	0.002	44.44
73	IP1111117-1MB ...	-0.001	36.67	0.003	71.11
74	IM1111117-1RVS...	0.009	244.45	0.017	370.01
75	IM1111117-1LCS...	0.847	19977.29	1.128	24734.41
76	1111160-2 10X	6.237	157513.94	27.696	651458.19
77	1111160-2D 10X	5.783	146979.48	28.061	664408.19
78	1111160-2L 50X	1.290	32008.79	5.730	132304.70
79	1111160-2MS 10X	7.424	193006.44	27.496	665897.34
80	1111160-2MSD ...	7.430	188409.51	25.586	604357.53
81	1111160-2A 10X	6.403	162286.11	30.015	708583.00
82	1111160-3 10X	8.091	210511.71	2.853	69171.64
83	CCV	0.977	23714.00	1.029	23205.22
84	CCB	0.016	397.79	0.007	151.12
85	ZZZZZZ	8.442	219740.05	2.279	55270.28
86	ZZZZZZ	8.497	223678.49	1.807	44323.48
87	ZZZZZZ	3.260	82642.14	45.984	1085799.73
88	ZZZZZZ	5.184	129282.86	110.465	2566380.07
89	ZZZZZZ	5.291	133946.37	91.284	2152351.33
90	ZZZZZZ	2.291	55680.02	333.137	7537446.40
91	ZZZZZZ	2.196	53315.80	287.206	6491445.09
92	ZZZZZZ	2.685	64052.98	273.806	6080930.17
93	ZZZZZZ	6.006	145425.64	701.069	15811191.09

547 of 618

Batch Summary Report

Analyte Table

	Sample Name	232 Th [1]		238 U [1]	
		Conc. [ppb]	CPS	Conc. [ppb]	CPS
94	ZZZZZZ	2.885	70981.21	159.415	3651529.02
95	CCV	1.005	24357.25	1.314	29615.69
96	CCB	0.015	382.24	0.120	2489.15
97	ZZZZZZ	2.907	78306.06	81.044	2033302.40
98	ZZZZZZ	6.630	169166.00	17.382	413202.51
99	ZZZZZZ	0.001	73.33	0.036	737.81
100	IM111117-2RVS...	0.008	231.12	0.042	847.82
101	IM111117-2LCS...	0.848	20071.84	1.060	23333.24
102	ZZZZZZ	7.001	170212.13	13.910	315060.02
103	ZZZZZZ	6.858	169193.63	14.101	324064.80
104	ZZZZZZ	1.419	34948.79	2.775	63594.93
105	ZZZZZZ	7.819	199176.19	15.002	356046.30
106	ZZZZZZ	8.014	202166.94	15.399	361926.42
107	CCV	1.000	23971.10	1.062	23687.16
108	CCB	0.017	417.79	0.007	147.78
109	ZZZZZZ	6.941	172267.29	15.601	360642.48
110	1111162-2 10X	4.137	100064.84	27.078	609956.69
111	1111162-3 10X	4.399	106573.77	25.479	575005.31
112	1111162-4 10X	2.949	72170.33	160.971	3667996.69
113	1111162-5 10X	2.428	60035.66	114.763	2641732.94
114	1111162-6 10X	3.637	89663.82	346.481	7954593.01
115	1111162-7 10X	2.638	63308.33	132.133	2952062.53
116	1111162-8 10X	4.166	100373.60	9.798	219922.88
117	1111162-9 10X	4.359	105439.29	8.070	181785.29
118	1111162-10 10X	3.105	74003.13	12.353	274080.91
119	CCV	1.007	23997.80	1.079	23922.05
120	CCB	0.017	430.01	0.024	504.46
121	1111162-11 10X	3.202	79291.40	1.124	25946.62
122	1111162-12 10X	4.247	105333.80	2.246	51900.40
123	1111162-13 10X	6.802	170800.87	1.622	37967.11
124	1111162-14 10X	6.742	166398.79	1.635	37621.65

548 of 618

Batch Summary Report

Analyte Table

	Sample Name	232 Th [1]		238 U [1]	
		Conc. [ppb]	CPS	Conc. [ppb]	CPS
125	1111162-15 10X	4.361	105395.56	61.716	1389140.85
126	1110371-1 50X	1.217	28995.87	15.234	337610.70
127	1111008-1 50X	2.116	50271.22	1.034	22886.94
128	1111008-2 50X	1.519	36562.75	13.553	303373.36
129	CCV	0.977	23745.18	1.051	23748.28
130	CCB	0.024	575.58	0.007	161.11
131	1110371-1 50X	0.015	413.35	0.006	145.56
132	1111008-1 50X	0.010	287.79	0.003	82.22
133	1111008-2 50X	0.009	246.67	0.007	150.00
134	EX111117-4MB...	0.003	132.23	0.003	76.67
135	EX111117-4RV...	0.013	332.23	0.012	261.12
136	EX111117-4LCS...	0.926	22205.01	1.054	23512.30
137	1111165-21 200X	0.033	845.59	3.775	83170.36
138	1111165-21D 2...	0.015	413.35	3.752	82289.74
139	1111165-21L 1...	0.007	205.56	0.767	15865.49
140	1111165-21MS ...	0.037	922.27	3.737	81720.81
141	CCV	0.958	22328.45	1.050	22760.14
142	CCB	0.021	498.91	0.001	30.00
143	1111165-21MSD...	0.049	1216.74	3.742	82394.38
144	1111165-22 200X	0.012	340.01	1.952	42615.41
145	1111167-11 200X	0.008	248.90	3.768	83069.23
146	1111167-12 200X	0.005	170.00	3.520	77019.79
147	1111167-13 200X	0.003	127.78	3.647	78600.08
148	IP111117-2MB ...	0.000	58.89	0.002	50.00
149	CCV	0.927	21778.67	1.064	23275.38
150	CCB	0.062	1354.71	0.001	32.22

Batch Summary Report

ISTD Table

	Sample Name	71 Ga (ISTD) [1]		72 Ga (ISTD) [1]		103 Rh (ISTD) [1]		115 In (ISTD) [1]		195 Pt (ISTD) [1]	
		CPS	Recovery%	CPS	Recovery%	CPS	Recovery%	CPS	Recovery%	CPS	Recovery%
1	blank	55252.18		25621.18		200751.75		173748.46		75030.48	
2	blank	57342.76	100.0	24382.77	100.0	197635.87	100.0	175859.11	100.0	74068.98	100.0
3	blank	57071.67	100.0	25708.17	100.0	197026.80	100.0	176072.35	100.0	74009.22	100.0
4	H/1000	62872.68	110.2	27724.70	107.8	215019.87	109.1	191298.40	108.6	77268.56	104.4
5	H/100	65319.45	114.5	28823.39	112.1	227232.58	115.3	202237.29	114.9	81591.81	110.2
6	H/10	64712.82	113.4	29277.54	113.9	221375.60	112.4	199427.07	113.3	78920.67	106.6
7	HIGH	69814.60	122.3	30676.68	119.3	216910.09	110.1	200874.30	114.1	78967.24	106.7
8	ICV	70878.63	124.2	31365.05	122.0	230841.47	117.2	212125.12	120.5	81474.88	110.1
9	ICB	60102.75	105.3	27260.54	106.0	201047.96	102.0	182756.80	103.8	69842.04	94.4
10	CR1	66738.39	116.9	30015.36	116.8	224387.31	113.9	203696.91	115.7	78485.06	106.0
11	CR2	68046.99	119.2	29568.02	115.0	224232.14	113.8	203021.08	115.3	79148.82	106.9
12	ICSA	68374.83	119.8	31017.40	120.7	229664.32	116.6	210695.04	119.7	82238.49	111.1
13	ICSAB	69700.45	122.1	31301.40	121.8	226443.42	114.9	207223.60	117.7	80264.07	108.5
14	IP111116-5MB ...	58573.43	102.6	25554.56	99.4	204007.23	103.5	181104.65	102.9	71162.32	96.2
15	IM111116-5LCS...	65482.57	114.7	28733.24	111.8	221393.39	112.4	198026.51	112.5	77529.35	104.8
16	1111041-23 10X	60343.75	105.7	26128.65	101.6	205229.91	104.2	184490.74	104.8	72029.27	97.3
17	1111067-35 10X	59125.96	103.6	26496.02	103.1	203875.11	103.5	183710.20	104.3	72901.16	98.5
18	1111086-38 10X	60125.99	105.4	26866.46	104.5	205193.53	104.1	183595.40	104.3	70914.20	95.8
19	1111037-3 10X	65650.48	115.0	29875.02	116.2	221754.62	112.6	202658.13	115.1	79456.53	107.4
20	CCV	66213.05	116.0	28970.20	112.7	223071.56	113.2	202123.67	114.8	78286.93	105.8
21	CCB	58687.29	102.8	26612.65	103.5	199187.09	101.1	179246.57	101.8	70169.99	94.8
22	1111037-3D 10X	67728.76	118.7	29838.34	116.1	220309.75	111.8	203295.59	115.5	77673.26	105.0
23	1111037-3L 50X	65215.33	114.3	29340.90	114.1	216316.98	109.8	200953.58	114.1	74970.36	101.3
24	1111037-3MS 10X	67313.80	117.9	29985.44	116.6	221022.47	112.2	202423.40	115.0	77516.54	104.7
25	1111037-3MSD ...	67220.48	117.8	29721.63	115.6	221498.19	112.4	201723.10	114.6	76353.80	103.2
26	1111038-1 10X	65663.73	115.1	38386.37	149.3	212318.06	107.8	197237.53	112.0	73807.71	99.7
27	1111038-2 10X	68963.91	120.8	37170.34	144.6	217018.97	110.1	202545.50	115.0	75764.02	102.4
28	1111040-1 10X	60935.33	106.8	28552.72	111.1	179689.08	91.2	175527.21	99.7	60159.54	81.3
29	1111040-3 10X	55459.43	97.2	26098.71	101.5	158998.21	80.7	155886.87	88.5	50698.07	68.5
30	1111040-4 10X	55820.11	97.8	25981.75	101.1	159288.51	80.8	156575.93	88.9	50761.74	68.6
31	1111040-5 10X	56934.61	99.8	26235.43	102.1	159416.80	80.9	160888.96	91.4	50818.21	68.7

550 of 618

Batch Summary Report

ISTD Table

	Sample Name	71 Ga (ISTD) [1]		72 Ge (ISTD) [1]		103 Rh (ISTD) [1]		115 In (ISTD) [1]		195 Pt (ISTD) [1]	
		CPS	Recovery%	CPS	Recovery%	CPS	Recovery%	CPS	Recovery%	CPS	Recovery%
32	CCV	70102.63	122.8	31909.09	124.1	221416.96	112.4	206479.13	117.3	72136.27	97.5
33	CCB	62591.82	109.7	28085.41	109.2	199107.61	101.1	181125.97	102.9	63714.11	86.1
34	1111078-35 10X	69945.29	122.6	30155.64	117.3	214542.44	108.9	203107.75	115.4	69872.55	94.4
35	1111040-7 10X	57004.31	99.9	26299.02	102.3	164019.10	83.2	159239.15	90.4	52771.65	71.3
36	1111051-1 10X	55242.27	96.8	24472.82	95.2	153344.69	77.8	152627.12	86.7	49206.32	66.5
37	1111051-2 10X	56823.97	99.6	24893.28	96.8	155875.83	79.1	153023.53	86.9	47918.71	64.7
38	CCV	65988.37	115.6	29544.57	114.9	206022.18	104.6	194367.60	110.4	65780.10	88.9
39	CCB	59356.39	104.0	26619.34	103.5	191469.59	97.2	175448.17	99.6	61368.14	82.9
40	IP111116-4MB ...	58513.52	102.5	27043.85	105.2	189709.67	96.3	175881.14	99.9	61471.81	83.1
41	IM111116-4RVS...	58125.56	101.8	25430.85	98.9	186191.69	94.5	172127.36	97.8	61060.75	82.5
42	IM111116-4LCS...	60784.73	106.5	27260.77	106.0	193676.68	98.3	181236.04	102.9	65103.88	88.0
43	1111137-1 10X	59720.92	104.6	26746.29	104.0	194544.43	98.7	181596.48	103.1	64822.49	87.6
44	1111138-1 10X	59520.09	104.3	25931.69	100.9	195981.15	99.5	180549.87	102.5	65606.25	88.6
45	1111140-1 10X	56248.88	98.6	24709.66	96.1	186963.76	94.9	174035.95	98.8	62252.41	84.1
46	1111160-1 10X	64532.21	113.1	25768.16	100.2	185506.07	94.2	174381.22	99.0	64377.58	87.0
47	1111162-16 10X	55442.57	97.1	25206.99	98.1	181588.67	92.2	171631.06	97.5	62978.30	85.1
48	1111185-13 10X	55569.59	97.4	24496.04	95.3	182750.23	92.8	173297.78	98.4	63322.83	85.6
49	1111185-13D 10X	54713.22	95.9	24202.40	94.1	183089.49	92.9	171899.14	97.6	63422.97	85.7
50	CCV	54127.76	94.8	23962.00	93.2	181951.46	92.3	166944.78	94.8	63677.92	86.0
51	CCB	47487.34	83.2	21398.39	83.2	162509.30	82.5	148369.66	84.3	56669.48	76.6
52	1111185-13L 50X	51703.65	90.6	22192.63	86.3	172198.73	87.4	159777.81	90.7	60086.26	81.2
53	1111185-13MS ...	52846.98	92.6	24028.76	93.5	179679.98	91.2	167555.84	95.2	63440.34	85.7
54	1111185-13MSD...	54753.19	95.9	25000.10	97.2	183837.96	93.3	172812.18	98.1	64317.43	86.9
55	1111205-1 10X	54011.19	94.6	24148.74	93.9	171687.46	87.1	166027.74	94.3	58553.45	79.1
56	1111205-2 10X	57192.04	100.2	26212.22	102.0	179239.63	91.0	172661.97	98.1	59908.59	80.9
57	IP111117-3MB ...	56389.39	98.8	25400.95	98.8	184725.29	93.8	170654.13	96.9	62900.79	85.0
58	IP111117-3LCS...	57723.69	101.1	25267.30	98.3	189536.62	96.2	175764.45	99.8	66022.18	89.2
59	1111005-1 10X	68957.62	120.8	25387.42	98.8	185481.01	94.1	174436.33	99.1	63768.35	86.2
60	1111005-2 10X	69539.94	121.8	25327.37	98.5	184959.21	93.9	173790.67	98.7	64176.82	86.7
61	1111005-2D 10X	70487.41	123.5	25294.06	98.4	185488.54	94.1	171872.16	97.6	64216.50	86.8
62	CCV	53864.13	94.4	24262.50	94.4	184360.96	93.6	170498.50	96.8	64229.99	86.8

551 of 618

Batch Summary Report

ISTD Table

	Sample Name	71 Ga (ISTD) [1]		72 Ge (ISTD) [1]		103 Rh (ISTD) [1]		115 In (ISTD) [1]		195 Pt (ISTD) [1]	
		CPS	Recovery%	CPS	Recovery%	CPS	Recovery%	CPS	Recovery%	CPS	Recovery%
63	COB	49199.62	86.2	21872.24	85.1	164045.50	83.3	151037.87	85.8	58442.92	79.0
64	1111005-2L 50X	55947.48	98.0	23451.37	91.2	179848.18	91.3	166617.93	94.6	62251.42	84.1
65	1111005-2MS 10X	67069.68	117.5	24890.09	96.8	177360.93	90.0	166253.07	94.4	62378.82	84.3
66	1111005-2MSD ...	66962.71	117.3	25110.44	97.7	180385.13	91.6	168229.07	95.5	63225.61	85.4
67	1111005-3 10X	68695.73	120.4	24412.65	95.0	182374.93	92.6	168307.90	95.6	63620.90	86.0
68	1111005-4 10X	67939.23	119.0	24653.08	95.9	180056.40	91.4	168931.34	95.9	63828.35	86.2
69	1111005-5 10X	67119.47	117.6	24319.20	94.6	178379.25	90.5	169992.03	96.5	62205.14	84.1
70	1111005-6 10X	87149.84	152.7	24866.62	96.7	179059.07	90.9	166743.30	94.7	62847.90	84.9
71	CCV	52198.49	91.5	22833.69	88.8	176704.43	89.7	164118.90	93.2	62596.98	84.6
72	COB	47119.86	82.6	20804.15	80.9	161848.49	82.1	149500.44	84.9	58472.98	79.0
73	IP111117-1MB ...	47677.76	83.5	21404.96	83.3	164263.28	83.4	150406.47	85.4	57590.22	77.8
74	IM111117-1RVS...	47701.45	83.6	20874.23	81.2	165136.01	83.8	151071.01	85.8	57907.62	78.2
75	IM111117-1LCS...	51626.70	90.5	22403.04	87.1	175975.89	89.3	163050.81	92.6	61271.40	82.8
76	1111160-2 10X	63006.62	110.4	23380.95	90.9	177723.90	90.2	164760.02	93.6	63178.98	85.4
77	1111160-2D 10X	62699.03	109.9	23551.35	91.6	174862.54	88.8	165870.47	94.2	63289.36	85.5
78	1111160-2L 50X	54378.50	95.3	23170.74	90.1	177340.72	90.0	165025.53	93.7	62559.71	84.5
79	1111160-2MS 10X	65894.61	115.5	23541.15	91.6	177277.47	90.0	165764.06	94.1	62120.90	83.9
80	1111160-2MSD ...	64054.03	112.2	23441.12	91.2	176761.30	89.7	165047.91	93.7	63389.82	85.7
81	1111160-2A 10X	63361.17	111.0	23364.48	90.9	176434.80	89.5	164351.55	93.3	62412.39	84.3
82	1111160-3 10X	66052.12	115.7	24075.49	93.6	174260.19	88.4	162690.46	92.4	62325.37	84.2
83	CCV	49138.89	86.1	22396.24	87.1	170726.54	86.7	158847.21	90.2	60990.12	82.4
84	COB	45822.37	80.3	20183.56	78.5	159594.00	81.0	149059.14	84.7	56990.56	77.0
85	ZZZZZ	66052.35	115.7	23648.24	92.0	177643.70	90.2	165246.53	93.9	63038.81	85.2
86	ZZZZZ	65446.15	114.7	24065.45	93.6	177997.82	90.3	165064.64	93.7	63835.07	86.3
87	ZZZZZ	56496.15	99.0	23217.52	90.3	177613.47	90.1	165217.93	93.8	62602.64	84.6
88	ZZZZZ	58743.90	102.9	22442.92	87.3	173405.08	88.0	162188.75	92.1	60779.15	82.1
89	ZZZZZ	60155.94	105.4	23197.42	90.2	173053.30	87.8	159532.36	90.6	62660.60	84.7
90	ZZZZZ	54061.32	94.7	22663.27	88.2	172588.85	87.6	159925.02	90.8	61421.70	83.0
91	ZZZZZ	54776.65	96.0	22563.20	87.8	174291.57	88.5	159374.03	90.5	61927.36	83.7
92	ZZZZZ	53696.96	94.1	21661.95	84.3	172413.66	87.5	160399.59	91.1	61605.48	83.2
93	ZZZZZ	55138.31	96.6	22085.90	85.9	171609.31	87.1	160142.16	91.0	63276.05	85.5

552 of 618

Batch Summary Report

ISTD Table

	Sample Name	71 Ga (ISTD) [1]		72 Ge (ISTD) [1]		103 Rh (ISTD) [1]		115 In (ISTD) [1]		195 Pt (ISTD) [1]	
		CPS	Recovery%	CPS	Recovery%	CPS	Recovery%	CPS	Recovery%	CPS	Recovery%
94	ZZZZZ	56174.65	98.4	23017.36	89.5	172980.17	87.8	160107.47	90.9	62556.21	84.5
95	CCV	49897.58	87.4	22029.20	85.7	174673.94	88.7	163797.12	93.0	63034.98	85.2
96	CCB	44966.83	78.8	20093.31	78.2	159748.17	81.1	146415.80	83.2	57251.63	77.4
97	ZZZZZ	58723.80	102.9	22660.02	88.1	172484.59	87.5	163559.72	92.9	62402.17	84.3
98	ZZZZZ	63622.06	111.5	23053.83	89.7	174341.39	88.5	162464.38	92.3	60671.54	82.0
99	ZZZZZ	44883.31	78.6	20270.21	78.8	158592.89	80.5	143992.58	81.8	56151.09	75.9
100	IM111117-2RVS...	45909.67	80.4	20443.64	79.5	160829.86	81.6	146464.19	83.2	57127.88	77.2
101	IM111117-2LOS...	48760.94	85.4	21528.50	83.7	168876.62	85.7	155981.54	88.6	61368.18	82.9
102	ZZZZZ	59225.88	103.8	23064.15	89.7	169033.98	85.8	157186.74	89.3	61672.63	83.3
103	ZZZZZ	59593.89	104.4	23123.90	89.9	170317.08	86.4	159157.28	90.4	62947.67	85.1
104	ZZZZZ	51566.67	90.4	21638.48	84.2	175008.78	88.8	160534.20	91.2	62000.65	83.8
105	ZZZZZ	61360.24	107.5	23317.55	90.7	175537.37	89.1	162056.01	92.0	62398.98	84.3
106	ZZZZZ	61711.43	108.1	23090.65	89.8	171972.30	87.3	160058.02	90.9	62148.33	84.0
107	CCV	48737.73	85.4	21618.73	84.1	169080.28	85.8	157024.26	89.2	61073.88	82.5
108	CCB	44291.59	77.6	19429.11	75.6	154626.32	78.5	142419.35	80.9	54561.66	73.7
109	ZZZZZ	58426.57	102.4	22406.52	87.2	170583.75	86.6	158508.91	90.0	60735.61	82.1
110	1111162-2 10X	55088.04	96.5	22606.55	87.9	169219.09	85.9	158073.48	89.8	60939.33	82.3
111	1111162-3 10X	55452.47	97.2	22953.70	89.3	170237.65	86.4	159222.72	90.4	61769.89	83.5
112	1111162-4 10X	55134.16	96.6	22115.90	86.0	175515.11	89.1	161753.56	91.9	61927.35	83.7
113	1111162-5 10X	54582.94	95.6	22089.21	85.9	173288.83	88.0	160267.39	91.0	62760.09	84.8
114	1111162-6 10X	55000.69	96.4	22396.21	87.1	170223.22	86.4	158654.88	90.1	60769.06	82.1
115	1111162-7 10X	54061.32	94.7	22165.95	86.2	172399.91	87.5	158507.38	90.0	61652.14	83.3
116	1111162-8 10X	53826.89	94.3	22225.99	86.5	169065.60	85.8	155648.29	88.4	60233.54	81.4
117	1111162-9 10X	55800.48	97.8	22359.51	87.0	168619.67	85.6	155204.90	88.1	59694.98	80.7
118	1111162-10 10X	52663.13	92.3	21805.53	84.8	165753.32	84.1	157798.62	89.6	60387.15	81.6
119	CCV	49339.25	86.5	21284.88	82.8	168903.01	85.7	154691.06	87.9	60504.60	81.8
120	CCB	44111.17	77.3	19952.96	77.6	160609.97	81.5	145592.88	82.7	55635.74	75.2
121	1111162-11 10X	53817.15	94.3	22209.50	86.4	170366.56	86.5	159096.26	90.4	60649.23	81.9
122	1111162-12 10X	56984.40	99.8	22903.69	89.1	169759.02	86.2	157182.08	89.3	61163.77	82.6
123	1111162-13 10X	61356.92	107.5	22563.23	87.8	172023.56	87.3	157088.12	89.2	61193.75	82.7
124	1111162-14 10X	59690.91	104.6	22202.68	86.4	168324.79	85.4	156939.53	89.1	60059.27	81.2

553 of 618

Batch Summary Report

ISTD Table

	Sample Name	71 Ga (ISTD) [1]		72 Ge (ISTD) [1]		103 Rh (ISTD) [1]		115 In (ISTD) [1]		195 Pt (ISTD) [1]	
		CPS	Recovery%	CPS	Recovery%	CPS	Recovery%	CPS	Recovery%	CPS	Recovery%
125	1111162-15 10X	54456.17	95.4	22916.94	89.1	170767.28	86.7	155671.61	88.4	60002.17	81.1
126	1110371-1 50X	476770.60	835.4	228534.24	889.0	169627.80	86.1	153350.63	87.1	59962.30	81.0
127	1111008-1 50X	52813.93	92.5	21535.34	83.8	168117.64	85.3	155447.12	88.3	61227.53	82.7
128	1111008-2 50X	441878.33	774.3	202933.92	789.4	173037.39	87.8	154870.29	88.0	60587.67	81.9
129	CCV	48379.95	84.8	21294.83	82.8	168106.67	85.3	154138.82	87.5	61639.43	83.3
130	CCB	44134.44	77.3	20080.08	78.1	156469.66	79.4	140633.32	79.9	55408.01	74.9
131	1110371-1 50X	47059.47	82.5	20310.19	79.0	165717.85	84.1	148396.33	84.3	58329.02	78.8
132	1111008-1 50X	45337.79	79.4	20230.04	78.7	164087.92	83.3	149383.90	84.8	57194.78	77.3
133	1111008-2 50X	45454.78	79.6	20500.47	79.7	160225.13	81.3	149297.35	84.8	58115.02	78.5
134	EX111117-4MB...	49292.78	86.4	21384.92	83.2	169440.60	86.0	157849.26	89.7	61713.11	83.4
135	EX111117-4RV...	44946.85	78.8	20206.64	78.6	159467.71	80.9	146520.38	83.2	57539.58	77.7
136	EX111117-4LCS...	49054.87	86.0	21722.16	84.5	169831.88	86.2	157224.90	89.3	60173.21	81.3
137	1111165-21 200X	62514.72	109.5	25086.89	97.6	166474.60	84.5	153706.75	87.3	58797.62	79.4
138	1111165-21D 2...	61411.17	107.6	25133.97	97.8	164889.31	83.7	155296.03	88.2	58777.90	79.4
139	1111165-21L 1...	47306.57	82.9	20897.59	81.3	158974.49	80.7	145876.00	82.9	55144.14	74.5
140	1111165-21MS ...	60661.27	106.3	24816.63	96.5	163992.21	83.2	152518.05	86.6	59021.79	79.7
141	CCV	48142.67	84.4	21191.27	82.4	166659.19	84.6	152253.37	86.5	60072.68	81.2
142	CCB	44087.96	77.3	19852.95	77.2	153895.15	78.1	141666.53	80.5	55227.13	74.6
143	1111165-21MSD...	61782.43	108.3	25457.57	99.0	167370.20	84.9	152266.53	86.5	59581.15	80.5
144	1111165-22 200X	57519.39	100.8	23855.04	92.8	167839.38	85.2	153227.82	87.0	58834.73	79.5
145	1111167-11 200X	59643.89	104.5	24602.88	95.7	166715.28	84.6	153465.07	87.2	59121.86	79.9
146	1111167-12 200X	60684.29	106.3	24739.76	96.2	164581.98	83.5	150778.89	85.6	59383.01	80.2
147	1111167-13 200X	58037.97	101.7	23951.87	93.2	162541.06	82.5	152282.41	86.5	57395.47	77.6
148	IP111117-2MB ...	42784.27	75.0	19175.41	74.6	151585.79	76.9	138827.29	78.8	55174.03	74.6
149	CCV	47270.17	82.8	21675.25	84.3	166217.62	84.4	152648.57	86.7	58784.79	79.4
150	CCB	43576.69	76.4	18841.65	73.3	153245.87	77.8	143020.35	81.2	53772.51	72.7

Batch Summary Report

ISTD Table

		209 Bi (ISTD) [1]	
	Sample Name	CPS	Recovery%
1	blank	102104.01	
2	blank	103362.61	100.0
3	blank	103931.09	100.0
4	H/1000	111589.00	107.4
5	H/100	117998.17	113.5
6	H/10	114496.76	110.2
7	HIGH	115555.74	111.2
8	ICV	118368.40	113.9
9	ICB	102369.65	98.5
10	CR11	114901.74	110.6
11	CR12	117463.67	113.0
12	ICSA	119092.87	114.6
13	ICSAB	115780.59	111.4
14	IP1111116-5MB ...	106253.79	102.2
15	IM1111116-5LCS...	114017.90	109.7
16	1111041-23 10X	105430.89	101.4
17	1111067-35 10X	105857.77	101.9
18	1111086-38 10X	106803.01	102.8
19	1111037-3 10X	115901.45	111.5
20	CCV	115797.66	111.4
21	CCB	101614.75	97.8
22	1111037-3D 10X	116865.41	112.4
23	1111037-3L 50X	112204.16	108.0
24	1111037-3MS 10X	114947.87	110.6
25	1111037-3MSD ...	115383.73	111.0
26	1111038-1 10X	106682.54	102.6
27	1111038-2 10X	105926.77	101.9
28	1111040-1 10X	83329.61	80.2
29	1111040-3 10X	71028.94	68.3
30	1111040-4 10X	67563.36	65.0
31	1111040-5 10X	68784.85	66.2

555 of 618

Batch Summary Report

ISTD Table

		209 BI (ISTD) [1]	
	Sample Name	CPS	Recovery%
32	CCV	106040.26	102.0
33	CCB	95660.96	92.0
34	1111078-35 10X	106200.57	102.2
35	1111040-7 10X	76549.83	73.7
36	1111051-1 10X	67408.91	64.9
37	1111051-2 10X	65433.18	63.0
38	CCV	101677.42	97.8
39	CCB	95229.58	91.6
40	IP111116-4MB ...	94882.90	91.3
41	IM111116-4RVS...	94523.84	90.9
42	IM111116-4LCS...	99214.78	95.5
43	1111137-1 10X	99536.82	95.8
44	1111138-1 10X	99982.88	96.2
45	1111140-1 10X	98280.73	94.6
46	1111160-1 10X	103255.91	99.4
47	1111162-16 10X	101261.32	97.4
48	1111185-13 10X	98449.04	94.7
49	1111185-13D 10X	98992.77	95.2
50	CCV	98770.69	95.0
51	CCB	88691.61	85.3
52	1111185-13L 50X	94127.53	90.6
53	1111185-13MS ...	98224.68	94.5
54	1111185-13MSD...	100982.81	97.2
55	1111205-1 10X	85298.17	82.1
56	1111205-2 10X	88294.77	85.0
57	IP111117-3MB ...	97936.52	94.2
58	IP111117-3LCS...	102933.02	99.0
59	1111005-1 10X	102509.81	98.6
60	1111005-2 10X	100674.03	96.9
61	1111005-2D 10X	100791.88	97.0
62	CCV	99838.65	96.1

556 of 618

Batch Summary Report

ISTD Table

		209 Bi (ISTD) [1]	
	Sample Name	CPS	Recovery%
63	CCB	92012.04	88.5
64	1111005-2L 50X	100020.76	96.2
65	1111005-2MS 10X	100380.11	96.6
66	1111005-2MSD ...	98845.11	95.1
67	1111005-3 10X	100509.45	96.7
68	1111005-4 10X	100107.39	96.3
69	1111005-5 10X	100153.53	96.4
70	1111005-6 10X	99187.84	95.4
71	CCV	99718.64	95.9
72	CCB	91327.50	87.9
73	IP111117-1MB ...	92625.19	89.1
74	IM111117-1RVS...	92306.13	88.8
75	IM111117-1LCS...	97346.27	93.7
76	1111160-2 10X	104469.97	100.5
77	1111160-2D 10X	105121.67	101.1
78	1111160-2L 50X	102495.90	98.6
79	1111160-2MS 10X	107522.48	103.5
80	1111160-2MSD ...	104886.15	100.9
81	1111160-2A 10X	104839.83	100.9
82	1111160-3 10X	107623.15	103.6
83	CCV	100127.17	96.3
84	CCB	90534.91	87.1
85	ZZZZZZ	107662.80	103.6
86	ZZZZZZ	108879.01	104.8
87	ZZZZZZ	104843.24	100.9
88	ZZZZZZ	103138.22	99.2
89	ZZZZZZ	104694.78	100.7
90	ZZZZZZ	100455.11	96.7
91	ZZZZZZ	100395.89	96.6
92	ZZZZZZ	98639.97	94.9
93	ZZZZZZ	100144.37	96.4

557 of 618

Batch Summary Report

ISTD Table

		209 Bi (ISTD) [1]	
	Sample Name	CPS	Recovery%
94	ZZZZZZ	101698.08	97.9
95	CCV	99995.65	96.2
96	CCB	91974.50	88.5
97	ZZZZZZ	111374.26	107.2
98	ZZZZZZ	105538.07	101.5
99	ZZZZZZ	89422.84	86.0
100	IM111117-2RVS...	88795.49	85.4
101	IM111117-2LCS...	97687.72	94.0
102	ZZZZZZ	100553.54	96.8
103	ZZZZZZ	102026.41	98.2
104	ZZZZZZ	101765.39	97.9
105	ZZZZZZ	105377.11	101.4
106	ZZZZZZ	104359.61	100.4
107	CCV	99005.77	95.3
108	CCB	89322.94	85.9
109	ZZZZZZ	102647.48	98.8
110	1111162-2 10X	100012.87	96.2
111	1111162-3 10X	100194.13	96.4
112	1111162-4 10X	101194.36	97.4
113	1111162-5 10X	102200.84	98.3
114	1111162-6 10X	101929.81	98.1
115	1111162-7 10X	99194.46	95.4
116	1111162-8 10X	99650.76	95.9
117	1111162-9 10X	100016.34	96.2
118	1111162-10 10X	98520.44	94.8
119	CCV	98368.86	94.6
120	CCB	90185.13	86.8
121	1111162-11 10X	102429.75	98.6
122	1111162-12 10X	102580.31	98.7
123	1111162-13 10X	103856.58	99.9
124	1111162-14 10X	102130.77	98.3

558 of 618

Batch Summary Report

ISTD Table

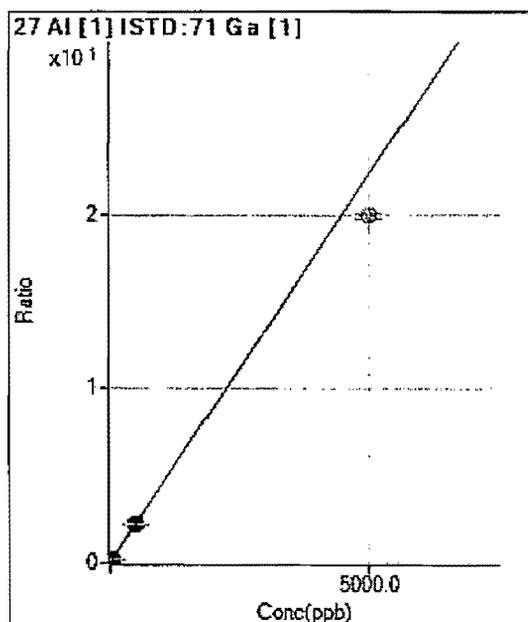
		209 Bi (ISTD) [1]	
	Sample Name	CPS	Recovery%
125	1111162-15 10X	99942.40	96.2
126	1110371-1 50X	98401.62	94.7
127	1111008-1 50X	98178.06	94.5
128	1111008-2 50X	99409.23	95.6
129	CCV	100351.63	96.6
130	CCB	90627.08	87.2
131	1110371-1 50X	96603.76	92.9
132	1111008-1 50X	94728.83	91.1
133	1111008-2 50X	93339.73	89.8
134	EX111117-4MB...	98489.34	94.8
135	EX111117-4RV...	90437.76	87.0
136	EX111117-4LCS...	98975.92	95.2
137	1111165-21 200X	97822.41	94.1
138	1111165-21D 2...	97365.15	93.7
139	1111165-21L 1...	91743.75	88.3
140	1111165-21MS ...	97073.65	93.4
141	CCV	96167.32	92.5
142	CCB	89288.42	85.9
143	1111165-21MSD...	97778.25	94.1
144	1111165-22 200X	96940.14	93.3
145	1111167-11 200X	97881.50	94.2
146	1111167-12 200X	97167.60	93.5
147	1111167-13 200X	95670.66	92.1
148	IP111117-2MB ...	87491.65	84.2
149	CCV	97094.33	93.4
150	CCB	88939.39	85.6

Calibration for 087SMPL.D

Batch Folder: C:\ICPMH\1\DATA\11K18p00.B*
 Analysis File: 11K18p00.batch.xml
 DA Date-Time: 11/21/2011 9:10:46 AM
 Calibration Title:
 Calibration Method: External Calibration
 VIS Interpolation Fit:
 Tune Step: #1 hehe.u

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB_11K18I00.D	blank	11/18/2011 11:36:17 AM
2	004CAL_11K18I00.D	H/1000	11/18/2011 11:38:49 AM
3	005CAL_11K18I00.D	H/100	11/18/2011 11:41:21 AM
4	006CAL_11K18I00.D	H/10	11/18/2011 11:43:51 AM
5	007CAL_11K18I00.D	HIGH	11/18/2011 11:46:20 AM
6			

Calibration for 087SMPL.D



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	0.000	0.000	290.02	0.0051	P	18.0
2	<input type="checkbox"/>	5.000	5.229	1780.18	0.0283	P	12.6
3	<input type="checkbox"/>	50.000	49.087	14583.60	0.2233	P	2.2
4	<input type="checkbox"/>	500.000	500.089	144211.16	2.2285	P	1.2
5	<input checked="" type="checkbox"/>	5000.000		1390318.10	19.9160	A	1.6
6	<input type="checkbox"/>	1000.000					

$y = 0.0044 * x + 0.0051$

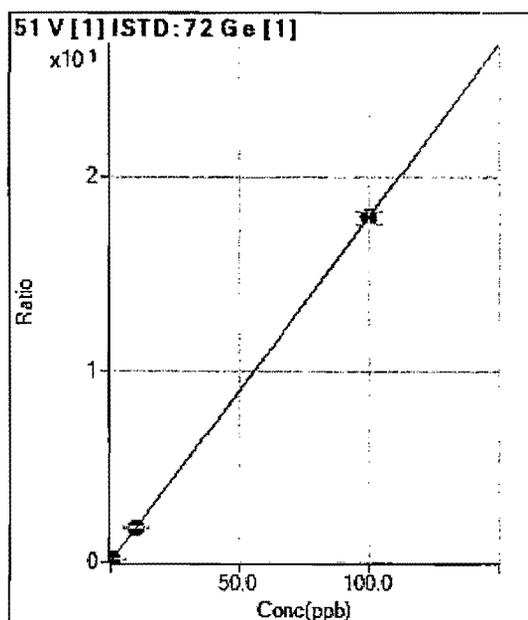
R = 1.0000

DL = 0.6161

BEC = 1.142

Weight: None

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	0.000	0.000	584.68	0.0228	P	3.7
2	<input type="checkbox"/>	0.100	0.110	1176.05	0.0424	P	2.2
3	<input type="checkbox"/>	1.000	1.002	5819.71	0.2019	P	3.5
4	<input type="checkbox"/>	10.000	10.122	53615.17	1.8320	P	3.0
5	<input type="checkbox"/>	100.000	99.988	548411.38	17.8947	P	3.7
6	<input type="checkbox"/>	20.000					

$y = 0.1787 * x + 0.0228$

R = 1.0000

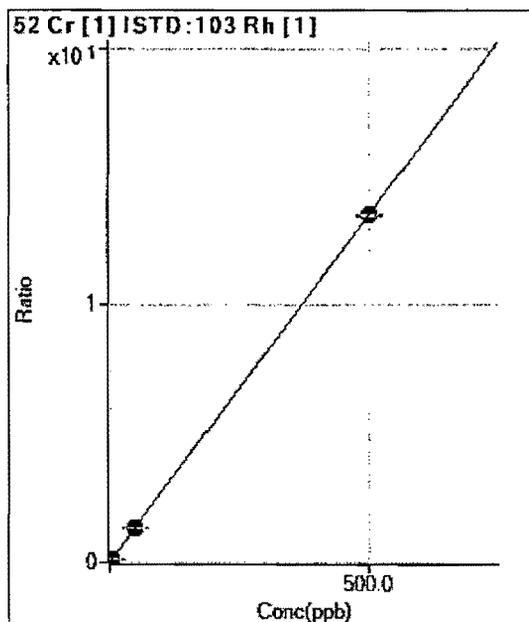
DL = 0.01413

BEC = 0.1273

Weight: None

Min Conc: <None>

Calibration for 087SMPL.D



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	0.000	0.000	798.92	0.0041	P	8.6
2	<input type="checkbox"/>	0.500	0.481	3674.90	0.0171	P	7.0
3	<input type="checkbox"/>	5.000	4.944	31291.96	0.1377	P	1.7
4	<input type="checkbox"/>	50.000	50.500	303227.53	1.3697	P	1.0
5	<input type="checkbox"/>	500.000	499.951	2933443.36	13.5242	A	0.4
6	<input type="checkbox"/>	100.000					

$y = 0.0270 * x + 0.0041$

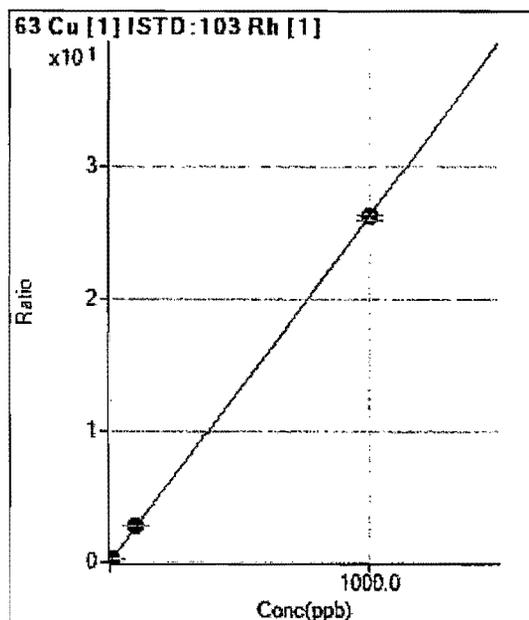
R = 1.0000

DL = 0.03856

BEC = 0.1502

Weight: None

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	0.000	0.000	836.70	0.0042	P	10.5
2	<input type="checkbox"/>	1.000	1.107	7155.00	0.0333	P	3.4
3	<input type="checkbox"/>	10.000	10.532	63709.80	0.2804	P	1.3
4	<input type="checkbox"/>	100.000	105.122	611187.82	2.7608	P	0.6
5	<input type="checkbox"/>	1000.000	999.482	5684542.00	26.2134	A	1.6
6	<input type="checkbox"/>	200.000					

$y = 0.0262 * x + 0.0042$

R = 1.0000

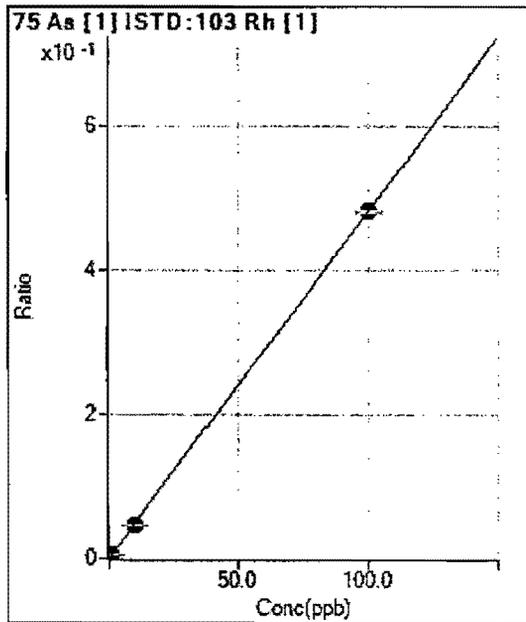
DL = 0.05076

BEC = 0.1618

Weight: None

Min Conc: <None>

Calibration for 087SMPLD



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	0.000	0.000	15.33	0.0001	P	23.1
2	<input type="checkbox"/>	0.100	0.088	107.33	0.0005	P	10.9
3	<input type="checkbox"/>	1.000	0.912	1013.37	0.0045	P	3.3
4	<input type="checkbox"/>	10.000	9.580	10218.88	0.0462	P	1.1
5	<input type="checkbox"/>	100.000	100.043	104387.60	0.4813	P	0.7
6	<input type="checkbox"/>	20.000					

$$y = 0.0048 * x + 7.7472E-005$$

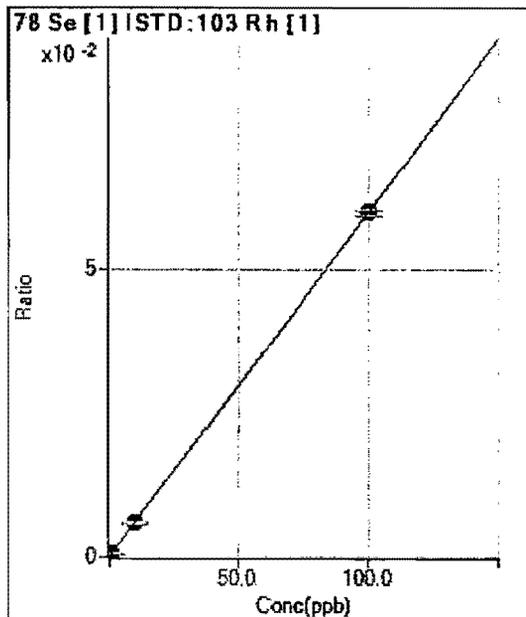
$$R = 1.0000$$

$$DL = 0.01118$$

$$BEC = 0.01611$$

Weight: None

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	0.000	0.000	7.33	0.0000	P	34.7
2	<input type="checkbox"/>	0.100	0.085	19.07	0.0001	P	26.4
3	<input type="checkbox"/>	1.000	1.016	146.27	0.0006	P	10.6
4	<input type="checkbox"/>	10.000	9.793	1303.65	0.0059	P	3.2
5	<input type="checkbox"/>	100.000	100.021	12967.82	0.0598	P	1.9
6	<input type="checkbox"/>	20.000					

$$y = 5.9750E-004 * x + 3.7439E-005$$

$$R = 1.0000$$

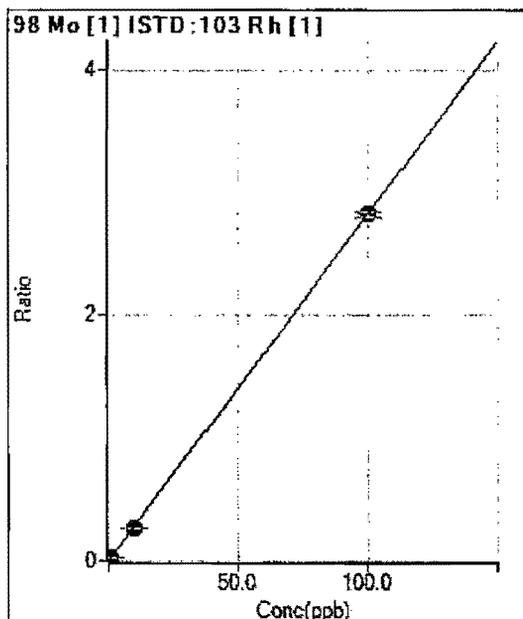
$$DL = 0.06521$$

$$BEC = 0.06266$$

Weight: None

Min Conc: <None>

Calibration for 087SMPLD



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	0.000	0.000	42.22	0.0002	P	25.4
2	<input type="checkbox"/>	0.100	0.092	606.69	0.0028	P	4.7
3	<input type="checkbox"/>	1.000	0.958	6186.84	0.0272	P	3.5
4	<input type="checkbox"/>	10.000	9.481	59257.31	0.2677	P	0.4
5	<input type="checkbox"/>	100.000	100.052	612119.47	2.8227	P	1.6
6	<input type="checkbox"/>	20.000					

$y = 0.0282 * x + 2.1424E-004$

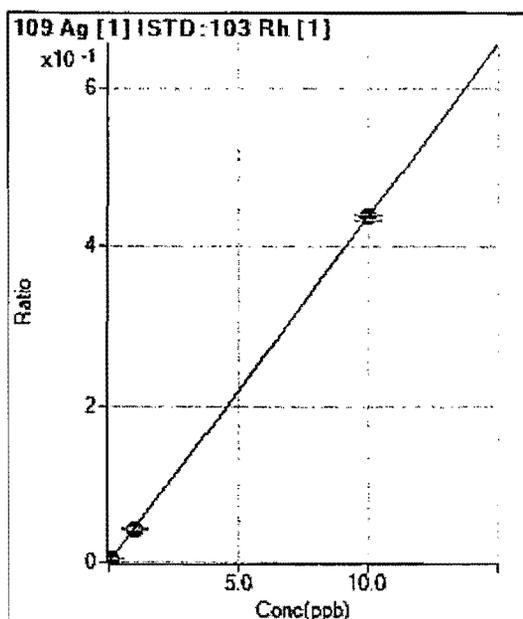
R = 1.0000

DL = 0.005778

BEC = 0.007595

Weight: None

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	0.000	0.000	7.78	0.0000	P	88.5
2	<input type="checkbox"/>	0.010	0.010	102.22	0.0005	P	12.5
3	<input type="checkbox"/>	0.100	0.103	1026.71	0.0045	P	8.4
4	<input type="checkbox"/>	1.000	0.972	9394.03	0.0424	P	4.9
5	<input type="checkbox"/>	10.000	10.003	94630.95	0.4364	P	1.7
6	<input type="checkbox"/>	2.000					

$y = 0.0436 * x + 3.8923E-005$

R = 1.0000

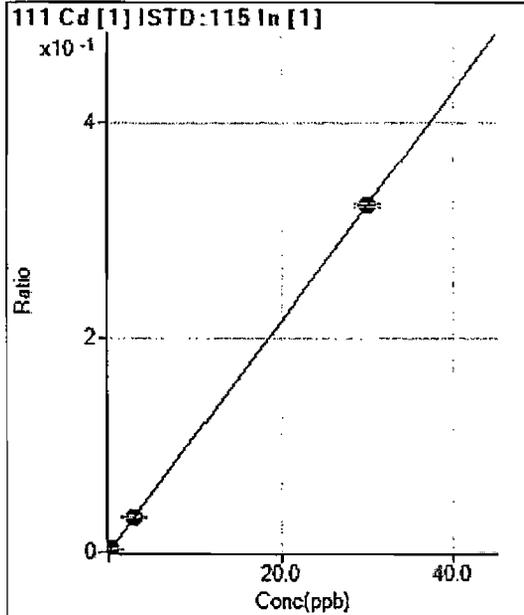
DL = 0.002368

BEC = 0.0008923

Weight: None

Min Conc: <None>

Calibration for 087SMPLD



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	0.000	0.000	7.99	0.0000	P	110.0
2	<input type="checkbox"/>	0.030	0.031	71.93	0.0004	P	27.4
3	<input type="checkbox"/>	0.300	0.288	634.60	0.0031	P	3.8
4	<input type="checkbox"/>	3.000	3.060	6566.19	0.0329	P	2.6
5	<input type="checkbox"/>	30.000	29.994	64749.66	0.3224	P	1.1
6	<input type="checkbox"/>	6.000					

$$y = 0.0107 * x + 4.5649E-005$$

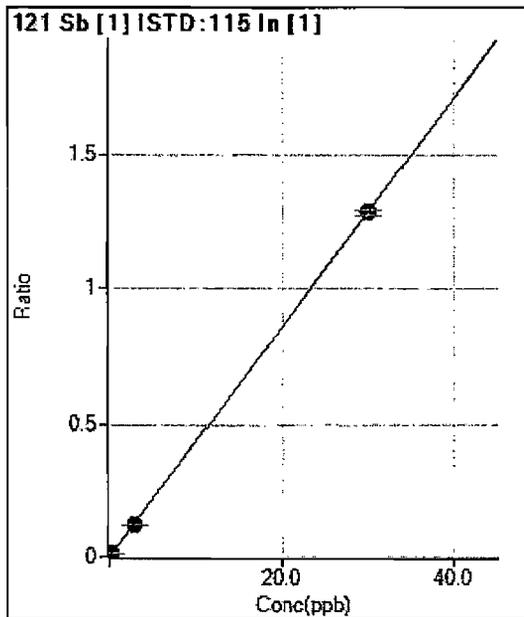
$$R = 1.0000$$

$$DL = 0.01402$$

$$BEC = 0.004248$$

Weight: None

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	0.000	0.000	22.22	0.0001	P	8.0
2	<input type="checkbox"/>	0.030	0.033	291.12	0.0015	P	18.7
3	<input type="checkbox"/>	0.300	0.296	2589.14	0.0128	P	12.3
4	<input type="checkbox"/>	3.000	2.912	24902.21	0.1249	P	0.2
5	<input type="checkbox"/>	30.000	30.009	258262.37	1.2857	P	1.6
6	<input type="checkbox"/>	6.000					

$$y = 0.0428 * x + 1.2616E-004$$

$$R = 1.0000$$

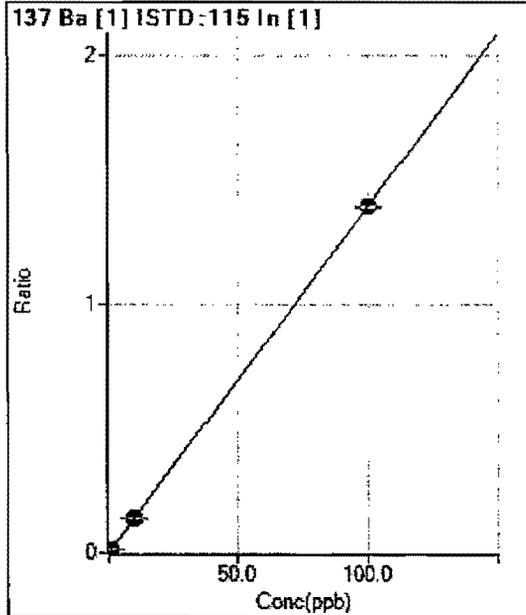
$$DL = 0.0007056$$

$$BEC = 0.002945$$

Weight: None

Min Conc: <None>

Calibration for 087SMPL.D



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	0.000	0.000	96.68	0.0005	P	14.4
2	<input type="checkbox"/>	0.100	0.107	390.03	0.0020	P	24.5
3	<input type="checkbox"/>	1.000	0.964	2830.39	0.0140	P	11.3
4	<input type="checkbox"/>	10.000	10.041	28006.46	0.1405	P	1.3
5	<input type="checkbox"/>	100.000	99.996	279979.16	1.3939	P	0.7
6	<input type="checkbox"/>	20.000					

$y = 0.0139 * x + 5.4838E-004$

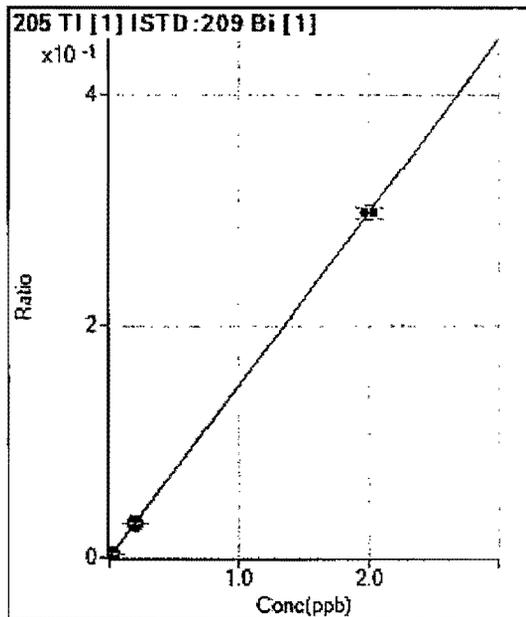
R = 1.0000

DL = 0.01703

BEC = 0.03936

Weight: None

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	0.000	0.000	17.62	0.0002	P	24.9
2	<input type="checkbox"/>	0.002	0.002	53.81	0.0005	P	2.2
3	<input type="checkbox"/>	0.020	0.021	385.72	0.0033	P	1.3
4	<input type="checkbox"/>	0.200	0.203	3485.19	0.0304	P	1.6
5	<input type="checkbox"/>	2.000	2.000	34405.98	0.2978	P	3.0
6	<input type="checkbox"/>	0.400					

$y = 0.1488 * x + 1.7091E-004$

R = 1.0000

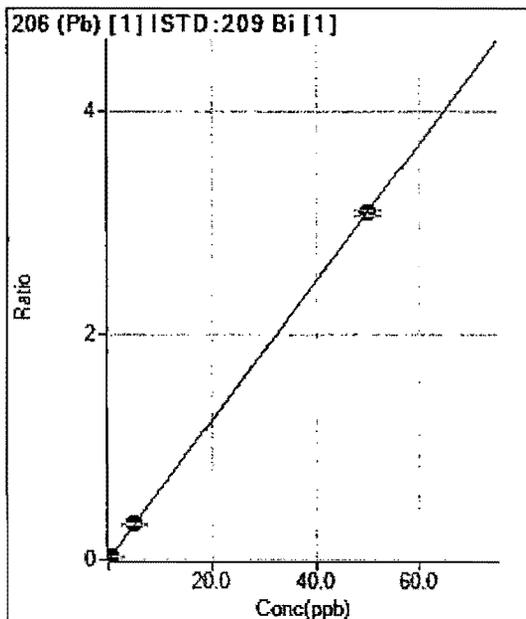
DL = 0.0008565

BEC = 0.001148

Weight: None

Min Conc: <None>

Calibration for 087SMPLD



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	0.000	0.000	186.68	0.0018	P	9.2
2	<input type="checkbox"/>	0.050	0.053	566.71	0.0051	P	6.8
3	<input type="checkbox"/>	0.500	0.542	4160.79	0.0353	P	2.7
4	<input type="checkbox"/>	5.000	5.172	36807.35	0.3215	P	3.4
5	<input type="checkbox"/>	50.000	49.982	357179.04	3.0909	P	1.6
6	<input type="checkbox"/>	10.000					

$y = 0.0618 * x + 0.0018$

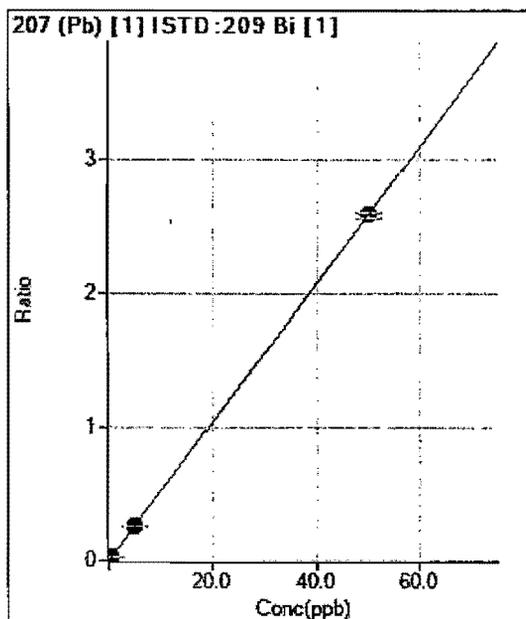
R = 1.0000

DL = 0.008061

BEC = 0.02914

Weight: None

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	0.000	0.000	116.68	0.0011	P	24.1
2	<input type="checkbox"/>	0.050	0.055	446.70	0.0040	P	17.4
3	<input type="checkbox"/>	0.500	0.486	3097.14	0.0263	P	4.3
4	<input type="checkbox"/>	5.000	5.057	30034.88	0.2623	P	2.9
5	<input type="checkbox"/>	50.000	49.994	298535.83	2.5834	P	1.3
6	<input type="checkbox"/>	10.000					

$y = 0.0517 * x + 0.0011$

R = 1.0000

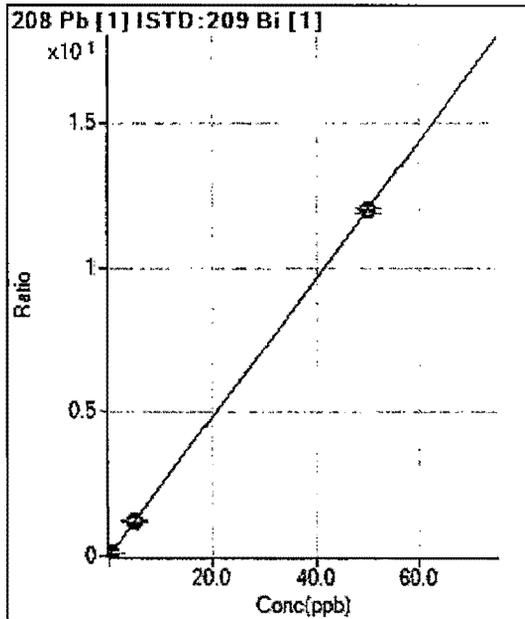
DL = 0.01587

BEC = 0.02192

Weight: None

Min Conc: <None>

Calibration for 087SMPLD



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	0.000	0.000	633.38	0.0061	P	30.2
2	<input type="checkbox"/>	0.050	0.053	2116.85	0.0190	P	4.1
3	<input type="checkbox"/>	0.500	0.510	15167.11	0.1286	P	1.9
4	<input type="checkbox"/>	5.000	5.137	141814.14	1.2386	P	2.1
5	<input type="checkbox"/>	50.000	49.986	1386370.75	11.9979	P	1.4
6	<input type="checkbox"/>	10.000					

$y = 0.2399 * x + 0.0061$

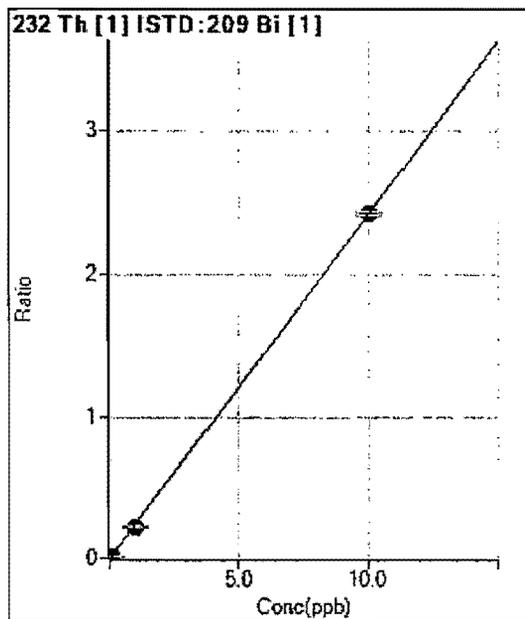
R = 1.0000

DL = 0.0232

BEC = 0.0256

Weight: None

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	0.000	0.000	61.11	0.0006	P	6.8
2	<input type="checkbox"/>	0.010	0.007	243.34	0.0022	P	30.9
3	<input type="checkbox"/>	0.100	0.063	1869.04	0.0158	P	0.8
4	<input type="checkbox"/>	1.000	0.921	25552.70	0.2232	P	2.2
5	<input type="checkbox"/>	10.000	10.008	279596.08	2.4196	P	0.9
6	<input type="checkbox"/>	2.000					

$y = 0.2417 * x + 5.8927E-004$

R = 1.0000

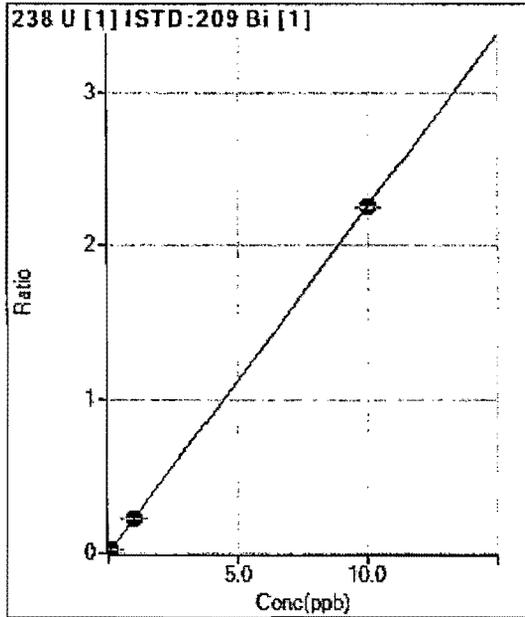
DL = 0.0004991

BEC = 0.002438

Weight: None

Min Conc: <None>

Calibration for 087SMPLD



	R/jct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	0.000	0.000	14.44	0.0001	P	53.2
2	<input type="checkbox"/>	0.010	0.015	382.23	0.0034	P	9.1
3	<input type="checkbox"/>	0.100	0.103	2753.63	0.0234	P	4.0
4	<input type="checkbox"/>	1.000	1.017	26243.64	0.2292	P	2.4
5	<input type="checkbox"/>	10.000	9.998	260246.53	2.2520	P	0.7
6	<input type="checkbox"/>	2.000					

$y = 0.2252 * x + 1.3652E-004$

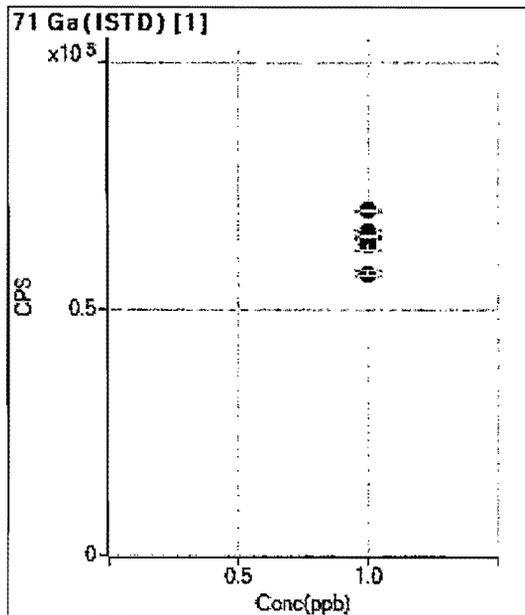
R = 1.0000

DL = 0.0009874

BEC = 0.0006081

Weight: None

Min Conc: <None>



	R/jct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	1.000		57071.67		P	1.9
2	<input type="checkbox"/>	1.000		62872.68		P	3.6
3	<input type="checkbox"/>	1.000		65319.45		P	1.8
4	<input type="checkbox"/>	1.000		64712.82		P	0.6
5	<input type="checkbox"/>	1.000		69814.60		P	0.8
6	<input type="checkbox"/>	1.000					

Header Information for Analytical Sequence 11K21k00

Instrument: Agilent ICPMS Model 7700X; Serial No. JP09400112
Software Revision: B.01.01
Date of Analysis: 11/21/2011
Analyst: Ross Miller

Calibration Standards

High Calibration Standard: ST100324-6 (expires 2/28/2015)

This standard contains the following elements at the listed concentrations (ng/ml).

100000	50000	10000	5000	2000	1000	500	200	100	50	30	10	2
Na	Ca	Mg	Fe	Zn	B	Cr	Mn	V	Pb	Sb	Th	Tl
	K		Al	Ti	Cu	Ni		Co	Be	Cd	U	
					Li	Sn		As		Y	Ag	
								Se		La		
								Mo		Ce		
								Ba		Pr		
								Sr		Nd		

1/10, 1/100, and 1/1000 dilutions of the High Calibration Standard are prepared daily to provide additional calibration standards.

ICV

The ICV is prepared by diluting 1ml of the 2nd Source intermediate (ST110707-8, expires 06/20/2012) to 5ml giving the following concentrations (ng/ml).

20000	10000	2000	1000	400	200	100	40	20	10	6	2	0.4
Na	Ca	Mg	Fe	Zn	B	Cr	Mn	V	Pb	Sb	Th	Tl
	K		Al	Ti	Cu	Ni		Co	Be	Cd	U	
					Li	Sn		As		Y	Ag	
								Se		La		
								Mo		Ce		
								Ba		Pr		
								Sr		Nd		

CRI1

The RL1 is prepared by diluting 0.05ml of the Reporting Limit Verification Spike Solution (ST100324-9 expires 2/28/2015) to 50ml giving the following concentrations (ng/ml).

100	50	10	5	2	1	0.5	0.2	0.1	0.05	0.03	0.02	0.01
Na	Ca	Mg	Al	Zn	B	Cr	Mn	V	Pb	Sb	Th	U
	K		Fe	Ti	Cu	Ni		Co	Be	Cd	Tl	Ag
					Li	Sn		As		Y		
								Se		La		
								Mo		Ce		
								Ba		Pr		
								Sr		Nd		

CRI2

The RL2 is prepared by diluting 0.1ml of the Reporting Limit Verification Spike Solution (ST100324-9 expires 2/28/2015) to 50ml giving the following concentrations (ng/ml).

200	100	20	10	4	2	1	0.4	0.2	0.1	0.06	0.04	0.02
Na	Ca	Mg	Al	Zn	B	Cr	Mn	V	Pb	Sb	Th	U
	K		Fe	Ti	Cu	Ni		Co	Be	Cd	Tl	Ag
					Li	Sn		As		Y		
								Se		La		
								Mo		Ce		
								Ba		Pr		
								Sr		Nd		

ICSA

The ICSA is prepared by diluting 0.5ml of ICSA intermediate (ST111103-1, expires 12/01/12) to a final volume of 50ml giving the following concentrations (ng/ml).

<u>42.5 X 10⁶</u>	<u>30000</u>	<u>25000</u>	<u>20000</u>	<u>10000</u>	<u>200</u>
Cl	Ca	Fe Na	C	Al K Mg P S	Mo Ti

ICSAB

The ICSAB is prepared by diluting 0.5ml of ICSA intermediate (ST111103-1, expires 12/01/12) and 5ml of High Calibration Standard: ST100324-6 (expires 2/28/2015) to a final volume of 50ml. The ICSAB contains the following elements at the listed concentrations (ng/ml).

<u>42.5X10⁶</u>	<u>35000</u>	<u>25500</u>	<u>20000</u>	<u>15000</u>	<u>11000</u>	<u>10500</u>	<u>10000</u>	<u>400</u>	<u>210</u>
Cl	Ca Na	Fe	C	K	Mg	Al	P S	Ti	Mo

<u>200</u>	<u>100</u>	<u>50</u>	<u>20</u>	<u>10</u>	<u>5</u>	<u>3</u>	<u>1</u>	<u>0.2</u>
Zn	B Cu Li	Cr Ni Sn	Mn	V Co As Se Ba Sr	Pb Be As La Ce Pr Nd	Sb Cd Y La Ce Pr Nd	Th U Ag	Tl

CCV

The CCV is prepared by diluting 5ml of the High Calibration Standard: ST100324-6 (expires 2/28/2015) to a final volume of 50ml. The CCV contains the following elements at the listed concentrations (ng/ml).

10000	5000	1000	500	200	100	50	20	10	5	3	1	0.2
Na	Ca	Mg	Fe	Zn	B	Cr	Mn	V	Pb	Sb	Th	Tl
	K		Al	Ti	Cu	Ni		Co	Be	Cd	U	
					Li	Sn		As		Y	Ag	
								Se		La		
								Mo		Ce		
								Ba		Pr		
								Sr		Nd		

Linear Dynamic Range Standards

LDR-Ca,Na,K

The LDR-Ca,Na,K standard is prepared by diluting 1ml of the High Calibration Standard Intermediate Mix (ST100324-5, expires 2/28/2015) to a final volume of 10ml. The LDR-Ca,Na,K standard contains the following elements at the listed concentrations (ng/ml).

100000	50000	20000	10000	5000	2000	1000	500	300	100	20
Mg	Fe	Zn	B	Cr	Mn	V	Pb	Sb	Th	Tl
	Al	Ti	Cu	Ni		Co	Be	Cd	U	
			Li	Sn		As		Y	Ag	
						Se		La		
						Mo		Ce		
						Ba		Pr		
						Sr		Nd		

1000 Na

The 1000 Na standard is prepared by diluting 1ml of the 10000mg/L Na stock solution (ST100301-26, expires 2/28/2015) to a final volume of 10ml. The 1000 Na standard contains Na at 100000 ng/ml.

500 Ca

The 500 Ca standard is prepared by diluting 0.5ml of the 10000mg/L Ca stock solution (ST100301-9, expires 2/28/2015) to a final volume of 10ml. The 500 Ca standard contains Ca at 50000 ng/ml.

500 K

The 500 K standard is prepared by diluting 0.5ml of the 10000mg/L K stock solution (ST100301-22, expires 2/28/2015) to a final volume of 10ml. The 500 K standard contains K at 50000 ng/ml.

Linear Dynamic Range

The instrument Linear Dynamic Range (LDR) is determined at least every 6 months. The current LDR was determined on 9/22/2010. The file containing the LDR data is 10I22m00. The instrument LDR is given below (ng/ml).

1000000	500000	100000	50000	20000	10000	5000	2000	1000	500	300	100	20
Na	Ca	Mg	Fe	Zn	B	Cr	Mn	V	Pb	Sb	Th	Tl
	K		Al	Ti	Cu	Ni		Co	Be	Cd	U	
					Li	Sn		As		Y	Ag	
								Se		La		
								Mo		Ce		
								Ba		Pr		
								Sr		Nd		

ICB/CCB and all diluent

1% HNO₃, 1%HCl in double deionized water

HNO₃ Lot No. J29049

HCl Lot No. J34056

Internal Standards

Internal standards are introduced continuously using a second channel on the peristaltic pump. The internal standard solution is prepared from 1000mg/L stock solutions. The internal standard solution contains the following elements at the listed concentrations (ng/ml).

<u>500</u>	<u>100</u>	<u>50</u>
Li	Rh	Bi
Ga	In	
Ge	Pt	

Pipet ID Numbers

1.0 to 5.0 ml -- M-55
0.1 to 1.0ml -- M-61
0.01 to 0.1ml -- M-57
0.5ml -- M-14

Dilutions

2X dilutions made by diluting 5ml of sample to 10ml final volume
5X dilutions made by diluting 1ml of sample to 5ml final volume
10X dilutions made by diluting 1ml of sample to 10ml final volume
50X dilutions made by diluting 0.1ml of sample to 5ml final volume
100X dilutions made by diluting 0.1ml of sample to 10ml final volume
200X dilutions made by diluting 0.05ml of sample to 10ml final volume
500X dilutions made by diluting 0.02ml of sample to 10ml final volume

Analytical Spikes

None in this sequence.

Daily Maintenance Items

1. Check / change pump tubing
2. Check / clean drain containers
3. Tune instrument per manufacturer's procedures
4. Perform resolution / mass calibration / stability test and print QC tune report

Monthly Maintenance Items

1. Check / clean torch and cones
2. Check / clean nebulizer and spray chamber
3. Check / fill water recirculating reservoir
4. Check / fill vacuum pump oil

Additional Comments

No additional comments.

QC Tune Report

Data File: C:\ICPMH\1\7500\QCTUNE.D
Date Acquired: 21 Nov 2011 10:15:53 am
Operator:
Misc Info:
Vial Number: 0
Current Method: C:\ICPMH\1\METHODS\2008TUNE.m

Minimum Response (CPS)

Element	Actual	Required	Flag
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RSD (%)

Element	Actual	Required	Flag
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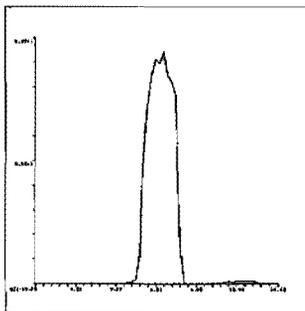
9 Be	1.89	5.00	
24 Mg	0.94	5.00	
25 Mg	1.41	5.00	
26 Mg	0.60	5.00	
59 Co	0.36	5.00	
115 In	0.53	5.00	
206 Pb	0.49	5.00	
207 Pb	0.73	5.00	
208 Pb	0.44	5.00	

Ion Ratio

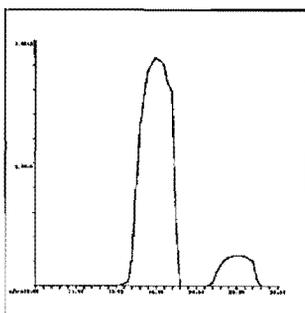
Element	Actual	Required	Flag
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Maximum Bkg. Count (CPS)

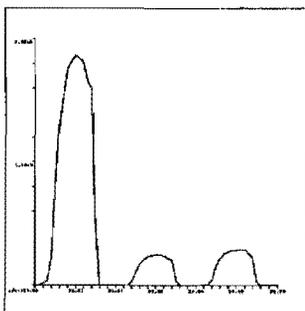
Element	Actual	Required	Flag
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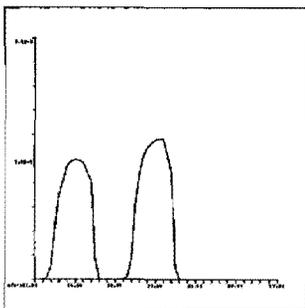
9 Be
Mass Calib.
Actual: 9.05
Required: 8.90-9.10
Flag:
Peak Width
Actual: 0.50
Required: 0.80
Flag:



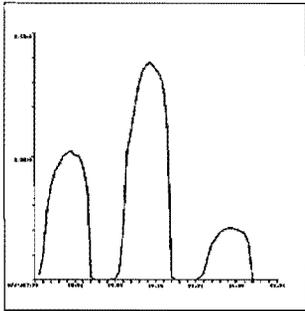
24 Mg
Mass Calib.
Actual: 24.00
Required: 23.90-24.10
Flag:
Peak Width
Actual: 0.55
Required: 0.80
Flag:



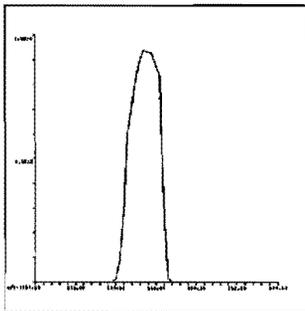
25 Mg
Mass Calib.
Actual: 25.00
Required: 24.90-25.10
Flag:
Peak Width
Actual: 0.55
Required: 0.80
Flag:



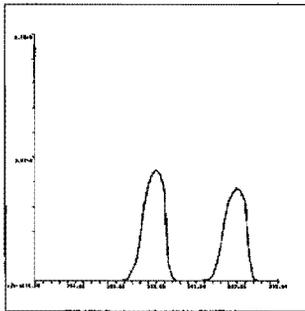
26 Mg
Mass Calib.
Actual: 26.00
Required: 25.90-26.10
Flag:
Peak Width
Actual: 0.55
Required: 0.80
Flag:



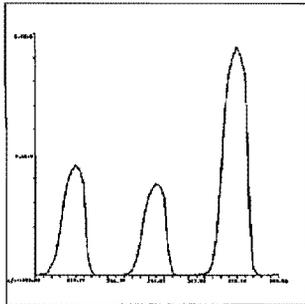
59 Co
Mass Calib.
Actual: 58.95
Required: 58.90-59.10
Flag:
Peak Width
Actual: 0.55
Required: 0.80
Flag:



115 In
Mass Calib.
Actual: 114.90
Required: 114.90-115.10
Flag:
Peak Width
Actual: 0.55
Required: 0.80
Flag:

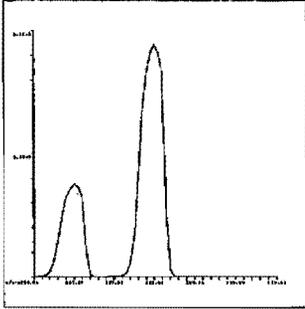


206 Pb
Mass Calib.
Actual: 206.00
Required: 205.90-206.10
Flag:
Peak Width
Actual: 0.45
Required: 0.80
Flag:



207 Pb
Mass Calib.
Actual: 207.00
Required: 206.90-207.10
Flag:
Peak Width
Actual: 0.45
Required: 0.80
Flag:

C:\ICPMH\1\7500\QCTUNE.D



208 Pb
Mass Calib.
Actual: 208.00
Required: 207.90-208.10
Flag:
Peak Width
Actual: 0.45
Required: 0.80
Flag:

QC Tune Result:Pass

Batch Summary Report

Batch Folder: C:\ICPMHY1\DATA\11K21k00.B\4
 Analysis File: 11K21k00.batch.xml
 Tune Step: #1 hehe.u

	Rjct	Acq. Date-Time	Data File	Sample Name	Type	Level	Dilution
1		11/21/2011 10:49:57 AM	001SMPL.D	blank	Sample		1.0000
2		11/21/2011 10:52:08 AM	002CALB.D	blank	CalBlk	1	1.0000
3		11/21/2011 10:54:20 AM	003CALB.D	blank	CalBlk	1	1.0000
4		11/21/2011 10:56:30 AM	004CAL.S.D	H/1000	CalStd	2	1.0000
5		11/21/2011 10:58:42 AM	005CAL.S.D	H/100	CalStd	3	1.0000
6		11/21/2011 11:00:53 AM	006CAL.S.D	H/10	CalStd	4	1.0000
7		11/21/2011 11:03:03 AM	007CAL.S.D	HIGH	CalStd	5	1.0000
8		11/21/2011 11:08:54 AM	008SMPL.D	ICV	6-ICV		1.0000
9		11/21/2011 11:14:48 AM	009SMPL.D	ICB	6-CCB		1.0000
10		11/21/2011 11:16:58 AM	010SMPL.D	CR1	Sample		1.0000
11		11/21/2011 11:19:09 AM	011SMPL.D	CR2	Sample		1.0000
12		11/21/2011 11:21:19 AM	012SMPL.D	ICSA	Sample		1.0000
13		11/21/2011 11:23:29 AM	013SMPL.D	ICSAB	Sample		1.0000
14		11/21/2011 11:29:21 AM	014SMPL.D	IP111118-2MB 10X	6-CCB		1.0000
15		11/21/2011 11:31:31 AM	015SMPL.D	IM111118-2RVS 10X	Sample		1.0000
16		11/21/2011 11:33:41 AM	016SMPL.D	IM111118-2LCS 10X	6-LCS		1.0000
17		11/21/2011 11:35:51 AM	017SMPL.D	1111071-1 10X	Sample		1.0000
18		11/21/2011 11:38:02 AM	018SMPL.D	1111071-1D 10X	Sample		1.0000
19		11/21/2011 11:40:12 AM	019SMPL.D	1111071-1L 50X	Sample		1.0000
20		11/21/2011 11:42:25 AM	020SMPL.D	CCV	6-CCV		1.0000
21		11/21/2011 11:44:36 AM	021SMPL.D	CCB	6-CCB		1.0000
22		11/21/2011 11:46:48 AM	022SMPL.D	1111071-1MS 10X	Sample		1.0000
23		11/21/2011 11:49:00 AM	023SMPL.D	1111071-1MSD 10X	Sample		1.0000
24		11/21/2011 11:51:10 AM	024SMPL.D	1111260-1 10X	Sample		1.0000
25		11/21/2011 11:53:21 AM	025SMPL.D	1111170-1 10X	Sample		1.0000
26		11/21/2011 11:55:32 AM	026SMPL.D	1111171-1 10X	Sample		1.0000
27		11/21/2011 11:57:44 AM	027SMPL.D	1111173-1 10X	Sample		1.0000
28		11/21/2011 11:59:55 AM	028SMPL.D	1111174-1 10X	Sample		1.0000

819 Jo 188

Batch Summary Report

	Rjct	Acq. Date-Time	Data File	Sample Name	Type	Level	Dilution
29		11/21/2011 12:02:06 PM	029SMPLD	1111180-1 10X	Sample		1.0000
30		11/21/2011 12:04:17 PM	030SMPLD	1111181-1 10X	Sample		1.0000
31		11/21/2011 12:06:27 PM	031SMPLD	1111182-1 10X	Sample		1.0000
32		11/21/2011 12:08:38 PM	032SMPLD	CCV	6-CCV		1.0000
33		11/21/2011 12:10:50 PM	033SMPLD	CCB	6-CCB		1.0000
34		11/21/2011 12:13:01 PM	034SMPLD	1111183-1 10X	Sample		1.0000
35		11/21/2011 12:15:12 PM	035SMPLD	1111207-1 10X	Sample		1.0000
36		11/21/2011 12:17:22 PM	036SMPLD	1111209-1 10X	Sample		1.0000
37		11/21/2011 12:19:33 PM	037SMPLD	1111210-1 10X	Sample		1.0000
38		11/21/2011 12:21:45 PM	038SMPLD	1111232-1 10X	Sample		1.0000
39		11/21/2011 12:23:56 PM	039SMPLD	1111233-1 10X	Sample		1.0000
40		11/21/2011 12:26:08 PM	040SMPLD	1111234-1 10X	Sample		1.0000
41		11/21/2011 12:28:22 PM	041SMPLD	1111235-1 10X	Sample		1.0000
42		11/21/2011 12:30:34 PM	042SMPLD	1111261-1 10X	Sample		1.0000
43		11/21/2011 12:32:44 PM	043SMPLD	1111104-1 10X	Sample		1.0000
44		11/21/2011 12:38:38 PM	044SMPLD	CCV	6-CCV		1.0000
45		11/21/2011 12:40:49 PM	045SMPLD	CCB	6-CCB		1.0000
46		11/21/2011 12:43:00 PM	046SMPLD	IP111118-3MB 10X	6-CCB		1.0000
47		11/21/2011 12:45:11 PM	047SMPLD	IM111118-3RVS 10X	Sample		1.0000
48		11/21/2011 12:47:22 PM	048SMPLD	IM111118-3LCS 10X	6-LCS		1.0000
49		11/21/2011 12:49:33 PM	049SMPLD	1111106-22 10X	Sample		1.0000
50		11/21/2011 12:51:44 PM	050SMPLD	1111106-22D 10X	Sample		1.0000
51		11/21/2011 12:53:54 PM	051SMPLD	1111106-22L 50X	Sample		1.0000
52		11/21/2011 12:56:06 PM	052SMPLD	1111106-22MS 10X	Sample		1.0000
53		11/21/2011 12:58:18 PM	053SMPLD	1111106-22MSD 10X	Sample		1.0000
54		11/21/2011 1:00:29 PM	054SMPLD	1111172-1 10X	Sample		1.0000
55		11/21/2011 1:02:49 PM	055SMPLD	1111172-2 10X	Sample		1.0000
56		11/21/2011 1:05:00 PM	056SMPLD	CCV	6-CCV		1.0000
57		11/21/2011 1:07:12 PM	057SMPLD	CCB	6-CCB		1.0000
58		11/21/2011 1:09:25 PM	058SMPLD	1111172-3 10X	Sample		1.0000
59		11/21/2011 1:11:36 PM	059SMPLD	1111172-4 10X	Sample		1.0000
60		11/21/2011 1:13:46 PM	060SMPLD	1111172-6 10X	Sample		1.0000
61		11/21/2011 1:15:56 PM	061SMPLD	1111172-10 10X	Sample		1.0000

582 of 618

Batch Summary Report

	Rjct	Acq. Date-Time	Data File	Sample Name	Type	Level	Dilution
62		11/21/2011 1:18:06 PM	062SMPLD	1111172-5 10X	Sample		1.0000
63		11/21/2011 1:24:01 PM	063SMPLD	1111134-1 10X	Sample		1.0000
64		11/21/2011 1:26:12 PM	064SMPLD	1111134-2 10X	Sample		1.0000
65		11/21/2011 1:28:23 PM	065SMPLD	1111134-3 10X	Sample		1.0000
66		11/21/2011 1:30:35 PM	066SMPLD	1111161-1 10X	Sample		1.0000
67		11/21/2011 1:32:46 PM	067SMPLD	1111161-2 10X	Sample		1.0000
68		11/21/2011 1:38:40 PM	068SMPLD	CCV	6-CCV		1.0000
69		11/21/2011 1:40:52 PM	069SMPLD	CCB	6-CCB		1.0000
70		11/21/2011 1:43:05 PM	070SMPLD	1111161-3 10X	Sample		1.0000
71		11/21/2011 1:45:16 PM	071SMPLD	1111161-4 10X	Sample		1.0000
72		11/21/2011 1:51:09 PM	072SMPLD	IP111117-2MB 10X	6-CCB		1.0000
73		11/21/2011 1:53:20 PM	073SMPLD	IM111117-2LCS 10X	6-LCS		1.0000
74		11/21/2011 1:55:30 PM	074SMPLD	1111162-1 10X	Sample		1.0000
75		11/21/2011 1:57:41 PM	075SMPLD	1111162-1D 10X	Sample		1.0000
76		11/21/2011 1:59:52 PM	076SMPLD	1111162-1L 50X	Sample		1.0000
77		11/21/2011 2:02:01 PM	077SMPLD	1111162-1MS 10X	Sample		1.0000
78		11/21/2011 2:04:13 PM	078SMPLD	1111162-1MSD 10X	Sample		1.0000
79		11/21/2011 2:06:24 PM	079SMPLD	1111160-4 10X	Sample		1.0000
80		11/21/2011 2:08:35 PM	080SMPLD	CCV	6-CCV		1.0000
81		11/21/2011 2:10:47 PM	081SMPLD	CCB	6-CCB		1.0000
82		11/21/2011 2:13:01 PM	082SMPLD	1111160-5 10X	Sample		1.0000
83		11/21/2011 2:15:13 PM	083SMPLD	1111160-6 100X	Sample		1.0000
84		11/21/2011 2:17:24 PM	084SMPLD	1111160-7 100X	Sample		1.0000
85		11/21/2011 2:19:36 PM	085SMPLD	1111160-8 100X	Sample		1.0000
86		11/21/2011 2:21:46 PM	086SMPLD	1111160-9 200X	Sample		1.0000
87		11/21/2011 2:23:58 PM	087SMPLD	1111160-10 200X	Sample		1.0000
88		11/21/2011 2:26:10 PM	088SMPLD	1111160-11 200X	Sample		1.0000
89		11/21/2011 2:28:20 PM	089SMPLD	1111160-12 1000X	Sample		1.0000
90		11/21/2011 2:30:32 PM	090SMPLD	1111160-13 100X	Sample		1.0000
91		11/21/2011 2:32:43 PM	091SMPLD	1111160-14 100X	Sample		1.0000
92		11/21/2011 2:34:54 PM	092SMPLD	CCV	6-CCV		1.0000
93		11/21/2011 2:37:06 PM	093SMPLD	CCB	6-CCB		1.0000
94		11/21/2011 2:39:16 PM	094SMPLD	1111160-15 100X	Sample		1.0000

583 of 618

Batch Summary Report

	Rjct	Acq. Date-Time	Data File	Sample Name	Type	Level	Dilution
95		11/21/2011 2:51:51 PM	001SMPL_11K21o00.D	1111136-1 10X	Sample		1.0000
96		11/21/2011 2:54:00 PM	002SMPL_11K21o00.D	1111136-1L 50X	Sample		1.0000
97		11/21/2011 2:56:11 PM	003SMPL_11K21o00.D	1111136-1MS 10X	Sample		1.0000
98		11/21/2011 2:58:20 PM	004SMPL_11K21o00.D	1111136-1MSD 10X	Sample		1.0000
99		11/21/2011 3:00:30 PM	005SMPL_11K21o00.D	1111136-2 10X	Sample		1.0000
100		11/21/2011 3:02:40 PM	006SMPL_11K21o00.D	1111136-3 10X	Sample		1.0000
101		11/21/2011 3:04:50 PM	007SMPL_11K21o00.D	1111136-4 10X	Sample		1.0000
102		11/21/2011 3:07:02 PM	008SMPL_11K21o00.D	1111136-5 50X	Sample		1.0000
103		11/21/2011 3:09:12 PM	009SMPL_11K21o00.D	1111136-6 10X	Sample		1.0000
104		11/21/2011 3:15:06 PM	010SMPL_11K21o00.D	CCV	6-CCV		1.0000
105		11/21/2011 3:17:18 PM	011SMPL_11K21o00.D	GCB	6-CCB		1.0000
106		11/21/2011 3:19:29 PM	012SMPL_11K21o00.D	1111136-7 10X	Sample		1.0000
107		11/21/2011 3:21:40 PM	013SMPL_11K21o00.D	1111136-8 10X	Sample		1.0000
108		11/21/2011 3:23:51 PM	014SMPL_11K21o00.D	1111136-9 10X	Sample		1.0000
109		11/21/2011 3:26:03 PM	015SMPL_11K21o00.D	1111136-10 10X	Sample		1.0000
110		11/21/2011 3:28:14 PM	016SMPL_11K21o00.D	1111136-11 10X	Sample		1.0000
111		11/21/2011 3:30:24 PM	017SMPL_11K21o00.D	1111136-12 10X	Sample		1.0000
112		11/21/2011 3:32:36 PM	018SMPL_11K21o00.D	1111136-13 10X	Sample		1.0000
113		11/21/2011 3:34:46 PM	019SMPL_11K21o00.D	1111136-14 10X	Sample		1.0000
114		11/21/2011 3:37:45 PM	020SMPL_11K21o00.D	1111228-1 100X	Sample		1.0000
115		11/21/2011 3:39:56 PM	021SMPL_11K21o00.D	1111228-2 10X	Sample		1.0000
116		11/21/2011 3:45:49 PM	022SMPL_11K21o00.D	CCV	6-CCV		1.0000
117		11/21/2011 3:48:00 PM	023SMPL_11K21o00.D	CCB	6-CCB		1.0000
118		11/21/2011 3:50:52 PM	024SMPL_11K21o00.D	1111228-2L 50X	Sample		1.0000
119		11/21/2011 3:53:04 PM	025SMPL_11K21o00.D	1111228-2MS 10X	Sample		1.0000
120		11/21/2011 3:55:16 PM	026SMPL_11K21o00.D	1111228-2MSD 10X	Sample		1.0000
121		11/21/2011 3:57:26 PM	027SMPL_11K21o00.D	1111228-3 10X	Sample		1.0000
122		11/21/2011 3:59:36 PM	028SMPL_11K21o00.D	1111228-4 200X	Sample		1.0000
123		11/21/2011 4:01:48 PM	029SMPL_11K21o00.D	1111228-5 100X	Sample		1.0000
124		11/21/2011 4:03:59 PM	030SMPL_11K21o00.D	1111228-6 10X	Sample		1.0000
125		11/21/2011 4:06:10 PM	031SMPL_11K21o00.D	1111228-7 10X	Sample		1.0000
126		11/21/2011 4:08:21 PM	032SMPL_11K21o00.D	1111228-8 50X	Sample		1.0000
127		11/21/2011 4:10:33 PM	033SMPL_11K21o00.D	1111228-9 200X	Sample		1.0000

584 of 618

Batch Summary Report

	Rjct	Acq. Date-Time	Data File	Sample Name	Type	Level	Dilution
128		11/21/2011 4:16:25 PM	034SMPL_11K21o00.D	CCV	6-CCV		1.0000
129		11/21/2011 4:18:37 PM	035SMPL_11K21o00.D	CCB	6-CCB		1.0000
130		11/21/2011 4:20:48 PM	036SMPL_11K21o00.D	1111228-10 10X	Sample		1.0000
131		11/21/2011 4:22:58 PM	037SMPL_11K21o00.D	1111228-11 10X	Sample		1.0000
132		11/21/2011 4:25:08 PM	038SMPL_11K21o00.D	1111228-12 10X	Sample		1.0000
133		11/21/2011 4:27:19 PM	039SMPL_11K21o00.D	1111228-13 100X	Sample		1.0000
134		11/21/2011 4:29:31 PM	040SMPL_11K21o00.D	1111228-14 200X	Sample		1.0000
135		11/21/2011 4:35:24 PM	041SMPL_11K21o00.D	CCV	6-CCV		1.0000
136		11/21/2011 4:37:35 PM	042SMPL_11K21o00.D	CCB	6-CCB		1.0000

Batch Summary Report

Analyte Table

	Sample Name	27 Al [1]		56 Fe [1]		121 Sb [1]		205 Tl [1]		238 U [1]	
		Conc. [ppb]	CPS	Conc. [ppb]	CPS	Conc. [ppb]	CPS	Conc. [ppb]	CPS	Conc. [ppb]	CPS
1	blank		93.34		1613.48		12.22		14.29		6.67
2	blank	-0.097	93.34	0.042	1806.85	0.002	30.00	0.000	19.52	0.000	15.55
3	blank	0.000	113.34	0.000	1646.83	0.000	15.56	0.000	14.76	0.000	22.22
4	H/1000	5.413	1276.78	7.361	35783.41	0.030	224.45	0.003	54.28	0.013	312.23
5	H/100	49.225	10887.37	55.946	266808.82	0.293	2101.28	0.022	346.20	0.104	2409.13
6	H/10	491.862	103588.01	515.667	2352162.67	3.058	20806.20	0.207	3134.64	1.006	22884.62
7	HIGH	5000.821	1051464.41	4998.371	22770419.66	29.994	211496.47	1.999	30372.42	9.999	229483.60
8	ICV	983.489	219330.99	1036.174	5005504.09	6.015	43521.39	0.410	6418.57	2.031	47936.33
9	ICB	-0.164	80.01	0.152	2253.67	0.003	32.22	0.005	84.29	0.000	17.78
10	CR11	23.374	5174.37	13.465	64838.98	0.033	248.90	0.023	363.82	0.012	302.23
11	CR12	10.180	2353.61	12.895	62957.96	0.065	474.46	0.044	694.31	0.024	594.47
12	ICSA	8964.206	1979389.35	24706.639	1.18206E+08	0.051	382.24	0.003	58.09	0.004	121.11
13	ICSAB	9477.492	2066749.14	25294.064	1.19510E+08	3.122	22430.64	0.200	3099.87	1.027	23983.09
14	IP111118-2MB _	1.121	330.02	3.631	16916.08	0.001	23.33	0.002	35.72	0.000	12.22
15	IM111118-2RVS...	5.915	1270.11	7.077	31627.98	0.032	224.45	0.021	306.20	0.010	231.12
16	IM111118-2LCS...	464.833	100559.56	502.013	2352115.49	3.044	20963.06	0.199	3030.81	0.982	22449.61
17	1111071-1 10X	5.997	1403.49	11.041	52837.21	0.032	240.00	0.008	138.10	0.527	12081.82
18	1111071-1D 10X	5.721	1363.47	11.165	54104.18	0.023	178.89	0.004	80.48	0.539	12096.30
19	1111071-1L 50X	1.579	453.36	2.362	12525.34	0.008	67.78	0.003	54.76	0.101	2255.77
20	CCV	485.813	104449.50	511.488	2381809.34	3.049	21448.15	0.200	3067.48	1.008	23282.00
21	CCB	0.077	126.67	0.327	2990.42	-0.001	12.22	0.005	81.43	0.000	15.56
22	1111071-1MS 10X	479.590	100741.33	525.877	2392367.26	2.958	20493.56	0.198	2984.61	1.496	33976.35
23	1111071-1MSD ...	481.959	99912.99	523.776	2351532.52	3.019	20510.21	0.207	3091.77	1.517	34006.12
24	1111260-1 10X	1.603	456.69	13.821	64493.82	0.033	246.67	0.010	158.57	0.506	11225.55
25	1111170-1 10X	0.982	323.35	23.535	107682.12	0.006	55.56	0.004	71.90	0.000	32.22
26	1111171-1 10X	7.971	1800.19	19.602	91187.19	0.025	193.34	0.003	60.00	0.174	3907.24
27	1111173-1 10X	1.955	536.70	3.661	18584.68	0.042	307.79	0.002	48.10	0.020	466.68
28	1111174-1 10X	3.301	833.39	1.280	7755.53	0.012	101.11	0.005	94.76	0.036	844.48
29	1111180-1 10X	1.119	360.02	48.259	223802.55	0.009	78.89	0.007	121.43	0.081	1820.14
30	1111181-1 10X	1.960	536.70	1.887	10420.61	0.003	40.00	0.002	39.05	0.140	3161.51
31	1111182-1 10X	2.218	593.37	2.102	11414.39	0.013	106.67	0.002	46.67	0.047	1078.95

819 JO 985

Batch Summary Report

Analyte Table

	Sample Name	27 Al [1]		56 Fe [1]		121 Sb [1]		205 Tl [1]		238 U [1]	
		Conc. [ppb]	CPS	Conc. [ppb]	CPS	Conc. [ppb]	CPS	Conc. [ppb]	CPS	Conc. [ppb]	CPS
32	CCV	503.546	106556.44	520.704	2386459.71	3.008	20954.16	0.198	2971.27	1.004	22687.70
33	CCB	0.003	110.00	0.195	2393.62	0.001	21.11	0.005	78.10	-0.001	11.11
34	1111183-1 10X	2.959	733.39	7.658	36174.40	0.011	91.11	0.002	50.48	0.136	3075.92
35	1111207-1 10X	1.738	480.03	1.805	9866.83	0.004	44.45	0.002	40.48	0.016	375.57
36	1111209-1 10X	1.477	433.36	3.464	17603.58	0.011	93.33	0.002	49.52	0.167	3694.97
37	1111210-1 10X	1.075	346.69	5.884	28519.12	0.010	82.23	0.001	29.05	0.211	4745.28
38	1111232-1 10X	1.820	510.03	15.318	72279.45	0.010	88.89	0.000	20.95	0.048	1121.18
39	1111233-1 10X	2.111	570.07	30.299	141318.78	0.017	138.89	0.001	31.43	0.075	1751.24
40	1111234-1 10X	7.560	1703.53	5.101	24906.69	0.022	168.89	0.001	37.14	0.020	470.02
41	1111235-1 10X	1.437	423.36	31.549	145346.19	0.006	56.67	0.002	41.91	0.069	1565.67
42	1111261-1 10X	1.317	396.69	474.042	2157489.13	0.004	42.22	0.001	23.34	0.004	104.45
43	1111104-1 10X	1.126	343.47	304.425	1333227.74	0.001	21.11	0.000	22.38	0.000	21.11
44	CCV	498.345	104191.80	525.544	2379770.75	3.046	20563.66	0.205	3018.90	1.007	22302.83
45	CCB	-0.047	100.00	0.152	2196.93	0.002	27.78	0.005	75.71	0.000	14.45
46	IP111118-3MB ...	0.737	250.01	0.732	4617.56	0.018	127.78	0.002	41.91	0.000	14.44
47	IM111118-3RVS...	4.876	1123.42	6.058	28642.62	0.043	301.12	0.019	300.01	0.008	188.89
48	IM111118-3LOS...	468.702	99315.72	503.028	2308550.48	2.962	20249.88	0.191	2852.20	0.991	22295.02
49	1111106-22 10X	0.582	240.01	1.179	7025.12	0.017	130.00	0.006	109.05	1.942	43679.47
50	1111106-22D 10X	1.034	333.35	1.647	9116.23	0.043	311.12	0.003	55.71	1.923	43003.12
51	1111106-22L 50X	0.414	203.34	0.160	2430.29	0.004	46.67	0.002	40.00	0.358	8080.15
52	1111106-22MS ...	491.725	101022.74	527.919	2348905.49	3.070	20870.68	0.192	2843.62	2.965	66054.43
53	1111106-22MSD...	481.745	99718.59	519.009	2327021.69	3.075	20729.48	0.208	3065.10	2.981	66034.70
54	1111172-1 10X	0.521	226.68	1.790	9716.70	0.009	80.00	0.010	161.43	0.696	15131.36
55	1111172-2 10X	1.601	450.03	6.216	29557.62	0.025	185.56	0.003	59.52	0.035	807.81
56	CCV	499.544	104259.33	521.923	2359190.74	3.029	20799.53	0.207	3097.01	0.999	22543.09
57	CCB	0.199	146.68	0.215	2463.62	0.002	26.67	0.005	86.19	0.000	16.67
58	1111172-3 10X	1.035	333.35	4.130	20249.92	0.010	86.67	0.012	190.00	1.097	24609.70
59	1111172-4 10X	0.819	296.69	8.480	40678.27	0.015	123.34	0.017	265.72	0.587	13150.55
60	1111172-6 10X	1.103	343.35	163.419	726524.96	0.005	53.33	0.002	38.10	0.680	14802.07
61	1111172-10 10X	1.035	340.02	10.297	48773.42	0.005	53.33	0.003	59.05	0.645	14318.28
62	1111172-5 10X	1.599	446.70	161.198	718463.45	0.007	62.23	0.001	27.14	0.667	14423.97

8130 788

Batch Summary Report

Analyte Table

	Sample Name	27 Al [1]		56 Fe [1]		121 Sb [1]		205 Tl [1]		238 U [1]	
		Conc. [ppb]	CPS	Conc. [ppb]	CPS	Conc. [ppb]	CPS	Conc. [ppb]	CPS	Conc. [ppb]	CPS
63	1111134-1 10X	0.649	250.01	467.673	2066851.27	0.004	43.33	0.001	27.14	-0.001	10.00
64	1111134-2 10X	1.134	343.35	312.125	1358369.46	0.002	31.11	0.000	17.14	0.000	23.33
65	1111134-3 10X	0.509	216.68	491.411	2127294.03	0.003	36.67	0.001	29.52	0.000	17.78
66	1111161-1 10X	0.694	260.02	213.070	945706.19	0.002	33.33	0.000	20.95	0.000	15.55
67	1111161-2 10X	0.408	206.68	237.192	1079350.24	0.002	27.78	0.000	20.95	-0.001	7.78
68	CCV	507.002	105400.31	521.414	2347554.86	3.006	20457.90	0.196	2959.36	1.023	23274.24
69	CCB	0.203	143.34	0.203	2353.62	0.001	23.33	0.004	69.53	-0.001	11.11
70	1111161-3 10X	0.486	213.35	326.732	1419883.73	0.000	14.44	0.002	41.43	0.000	15.55
71	1111161-4 10X	0.904	300.02	207.821	913943.92	0.002	28.89	0.001	33.33	0.000	13.33
72	IP111117-2MB ...	2.314	540.03	8.038	34036.34	0.000	16.67	0.001	30.95	0.001	43.33
73	IM111117-2LCS...	483.585	98447.34	518.750	2287104.55	3.047	20200.96	0.221	3174.17	1.006	21758.57
74	1111162-1 10X	7224.306	1502918.83	15458.021	69675840.63	0.101	707.81	0.160	2488.32	13.399	313205.44
75	1111162-1D 10X	7477.210	1533812.74	16208.006	72035900.59	0.095	662.25	0.169	2616.92	13.913	323641.30
76	1111162-1L 50X	1465.673	307076.68	3074.222	13953200.63	0.023	175.56	0.035	559.54	2.709	63392.16
77	1111162-1MS 10X	9021.449	1825419.14	16772.310	73530172.24	1.016	6792.68	0.366	5655.87	15.162	352906.43
78	1111162-1MSD ...	9021.168	1812382.42	16703.107	72705048.92	1.016	6782.68	0.360	5605.38	14.944	350486.54
79	1111160-4 10X	11631.814	2376007.41	19338.155	85588848.72	0.079	548.91	0.215	3370.41	2.229	52624.09
80	CCV	485.376	98765.71	514.588	2267243.30	2.965	19930.62	0.212	3150.36	1.018	22730.07
81	CCB	0.368	173.35	1.257	6518.25	0.000	16.67	0.011	157.15	0.001	33.33
82	1111160-5 10X	11204.652	2288664.55	21202.588	93833628.60	0.105	724.47	0.232	3709.54	1.764	42463.87
83	1111160-6 100X	433.015	84357.64	882.078	3720077.76	0.004	41.11	0.021	312.86	4.387	94964.08
84	1111160-7 100X	793.315	162495.24	1329.755	5899160.33	0.009	77.78	0.023	349.53	10.736	240453.55
85	1111160-8 100X	808.264	166005.58	1422.228	6326549.07	0.010	84.45	0.023	367.15	8.967	203871.32
86	1111160-9 200X	122.002	24308.82	361.418	1554449.09	0.001	21.11	0.009	145.24	16.934	369722.78
87	1111160-10 200X	142.035	28124.67	375.908	1608058.73	0.001	20.00	0.008	128.58	14.312	314703.84
88	1111160-11 200X	135.196	27179.92	374.853	1627476.59	0.003	34.44	0.007	115.72	13.814	299340.14
89	1111160-12 10...	32.424	6268.17	89.941	371813.60	0.000	16.67	0.002	47.14	7.015	145924.61
90	1111160-13 100X	398.518	80170.48	867.864	3779083.17	0.000	13.33	0.007	117.62	15.829	344138.58
91	1111160-14 100X	617.595	123908.07	1469.774	6385031.78	0.036	254.45	0.026	406.68	8.208	184761.85
92	CCV	479.143	98427.13	507.783	2258792.36	2.973	20025.17	0.201	3005.09	1.027	23139.63
93	CCB	-0.016	103.33	0.513	3597.23	0.002	26.67	0.006	88.10	0.000	22.22

588 of 618

Batch Summary Report

Analyte Table

	Sample Name	27 Al [1]		56 Fe [1]		121 Sb [1]		205 Tl [1]		238 U [1]	
		Conc. [ppb]	CPS	Conc. [ppb]	CPS	Conc. [ppb]	CPS	Conc. [ppb]	CPS	Conc. [ppb]	CPS
94	1111160-15 100X	1290.305	261913.08	1808.390	7951827.80	0.010	82.22	0.026	393.82	1.717	38413.38
95	1111136-1 10X	0.445	206.68	7.248	33385.08	0.001	26.67	0.005	90.00	1.226	26104.55
96	1111136-1L 50X	0.673	260.02	0.254	2883.71	0.000	14.44	0.002	41.90	0.222	4986.49
97	1111136-1MS 10X	43.479	8986.13	1.749	9443.13	1.956	13567.13	0.099	1422.94	3.240	69738.06
98	1111136-1MSD ...	44.805	9139.56	1.869	9846.74	1.943	13484.85	0.097	1377.69	3.286	69473.27
99	1111136-2 10X	0.641	243.34	0.283	2907.05	0.010	83.34	0.010	145.24	1.056	20818.29
100	1111136-3 10X	0.715	280.02	0.189	2703.68	0.001	23.33	0.001	28.57	0.193	4240.69
101	1111136-4 10X	0.385	203.34	0.250	2920.40	0.002	28.89	0.001	31.43	0.193	4202.90
102	1111136-5 50X	0.640	256.68	23.211	107832.45	0.001	22.22	0.010	155.71	0.462	10042.46
103	1111136-6 10X	1.254	333.35	204.736	811159.26	0.005	46.67	0.015	178.58	2.512	42074.75
104	CCV	521.017	118814.36	532.215	2628651.21	2.947	22119.13	0.195	3057.01	1.014	23950.85
105	CCB	-0.119	93.33	0.296	3010.42	0.001	22.22	0.006	94.29	0.000	18.89
106	1111136-7 10X	1.076	360.03	1.512	8966.14	0.028	220.00	0.006	103.34	3.226	69677.70
107	1111136-8 10X	2.048	573.37	0.614	4734.25	0.002	31.11	0.001	32.38	1.114	24308.21
108	1111136-9 10X	1.146	320.02	140.131	564406.84	0.005	50.00	0.080	903.37	1.955	33005.11
109	1111136-10 10X	0.883	346.68	0.605	5097.70	0.010	96.67	0.003	55.71	0.242	5565.58
110	1111136-11 10X	1.390	443.36	0.574	4684.23	0.003	43.33	0.003	65.24	2.550	56098.88
111	1111136-12 10X	0.716	293.35	22.266	111143.91	0.001	24.44	0.001	24.76	0.211	4820.87
112	1111136-13 10X	0.547	256.68	20.621	104041.64	0.002	34.44	0.000	22.86	0.195	4472.98
113	1111136-14 10X	1.561	493.37	6.640	35148.86	0.001	27.78	0.001	34.29	0.250	5756.77
114	1111228-1 100X	0.628	280.02	0.289	3403.85	0.003	43.33	0.001	25.72	9.389	223789.22
115	1111228-2 10X	1.302	410.03	0.418	3803.95	0.014	123.34	0.004	78.09	0.586	12738.99
116	CCV	527.958	115495.35	535.350	2536940.07	3.026	21630.61	0.194	2936.50	0.989	22543.14
117	CCB	0.032	120.00	0.296	2913.73	0.003	33.33	0.005	85.24	0.000	20.00
118	1111228-2L 50X	0.958	333.35	0.232	2910.40	0.001	25.56	0.001	36.67	0.110	2461.36
119	1111228-2MS 10X	45.999	9739.94	0.287	3053.75	1.966	13838.49	0.097	1375.79	2.614	55338.43
120	1111228-2MSD ...	44.325	9583.21	0.323	3283.82	1.969	14107.62	0.106	1505.80	2.645	56271.79
121	1111228-3 10X	0.910	323.35	0.133	2446.96	0.012	108.89	0.006	105.72	0.522	11145.49
122	1111228-4 200X	0.924	340.24	0.144	2613.66	0.005	53.33	0.004	78.10	6.907	159055.16
123	1111228-5 100X	0.687	283.35	207.515	1009135.90	0.001	25.56	0.001	37.14	10.314	236563.14
124	1111228-6 10X	1.206	340.02	549.873	2273439.39	0.005	47.78	0.002	33.33	0.741	12992.60

589 of 618

Batch Summary Report

Analyte Table

	Sample Name	27 Al [1]		56 Fe [1]		121 Sb [1]		205 Tl [1]		238 U [1]	
		Conc. [ppb]	CPS	Conc. [ppb]	CPS	Conc. [ppb]	CPS	Conc. [ppb]	CPS	Conc. [ppb]	CPS
125	1111228-7 10X	0.600	270.01	17.061	86634.90	0.022	186.67	0.001	32.38	0.147	3239.29
126	1111228-8 50X	1.012	360.02	0.272	3227.13	0.005	58.89	0.006	91.43	14.529	304742.98
127	1111228-9 200X	0.798	320.02	0.269	3310.49	0.002	32.22	0.001	32.86	10.823	240291.69
128	CCV	534.469	119432.73	545.473	2640061.32	2.967	21937.70	0.193	2928.88	1.029	23497.88
129	CCB	0.313	176.68	0.761	4937.65	0.004	42.22	0.016	231.43	0.002	56.67
130	1111228-10 10X	0.931	333.35	2.792	15217.72	0.049	380.01	0.006	109.05	9.076	201928.05
131	1111228-11 10X	0.758	286.68	237.231	1110726.67	0.002	31.11	0.005	82.38	0.113	2430.25
132	1111228-12 10X	1.484	383.35	73.012	296003.53	0.005	48.89	0.006	76.67	1.782	29820.26
133	1111228-13 100X	0.785	336.68	1.401	9569.84	0.020	184.45	0.005	94.29	3.886	92765.48
134	1111228-14 200X	1.203	433.36	0.264	3433.86	0.002	33.33	0.005	95.72	18.228	423677.54
135	CCV	575.620	137776.26	564.072	2924462.46	3.002	23753.73	0.196	3086.06	1.017	24150.00
136	CCB	0.920	323.35	1.272	7752.22	0.007	65.56	0.018	262.38	0.005	126.67

Batch Summary Report

ISTD Table

		103 Rh (ISTD) [1]		115 In (ISTD) [1]		195 Pt (ISTD) [1]		209 Bi (ISTD) [1]	
	Sample Name	CPS	Recovery%	CPS	Recovery%	CPS	Recovery%	CPS	Recovery%
1	blank	160032.18		140360.29		62727.67		88999.23	
2	blank	161942.27	100.0	146440.67	100.0	60963.12	100.0	88687.64	100.0
3	blank	163571.29	100.0	146405.53	100.0	61910.80	100.0	89583.81	100.0
4	H/1000	177427.74	108.5	159719.31	109.1	65963.77	106.5	97670.59	109.0
5	H/100	181965.31	111.2	165995.69	113.4	67420.68	108.9	99495.87	111.1
6	H/10	175114.40	107.1	158930.52	108.6	65743.72	106.2	98174.19	109.6
7	HIGH	175012.90	107.0	164794.15	112.6	66423.53	107.3	99103.26	110.6
8	ICV	185535.75	113.4	169035.09	115.5	69862.28	112.8	101875.44	113.7
9	ICB	160786.79	98.3	146395.15	100.0	58429.76	94.4	88888.76	99.2
10	CRI1	179835.87	109.9	164615.72	112.4	64839.19	104.7	100160.70	111.8
11	CRI2	182117.64	111.3	164890.86	112.6	66483.48	107.4	100660.60	112.4
12	ICSA	183815.15	112.4	168634.50	115.2	68261.73	110.3	100815.61	112.5
13	ICSAB	181521.78	111.0	167792.43	114.6	66601.00	107.6	100760.98	112.5
14	JP111118-2MB ...	161828.35	98.9	145370.55	99.3	58747.57	94.9	88487.18	98.8
15	IM111118-2RVS...	162809.83	99.5	150028.00	102.5	60059.30	97.0	90935.41	101.5
16	IM111118-2LCS...	179872.73	110.0	160846.81	109.9	63573.75	102.7	98671.01	110.1
17	1111071-1 10X	177670.60	108.6	162452.39	111.0	63660.67	102.8	98849.34	110.3
18	1111071-1D 10X	179945.20	110.0	166182.90	113.5	62304.97	100.6	96771.70	108.0
19	1111071-1L 50X	175051.91	107.0	158728.59	108.4	61528.47	99.4	95614.00	106.7
20	CCV	178785.77	109.3	164250.10	112.2	66405.93	107.3	99654.20	111.2
21	CCB	161039.83	98.5	147721.24	100.9	58430.47	94.4	88175.12	98.4
22	1111071-1MS 10X	174651.34	106.8	161815.08	110.5	62599.99	101.1	97992.89	109.4
23	1111071-1MSD ...	172369.64	105.4	158668.93	108.4	63986.08	103.4	96777.43	108.0
24	1111260-1 10X	174407.31	106.6	160732.65	109.8	62700.07	101.3	95564.50	106.7
25	1111170-1 10X	172958.59	105.7	159048.65	108.6	62044.30	100.2	94151.62	105.1
26	1111171-1 10X	175279.55	107.2	162694.11	111.1	62130.90	100.4	96207.28	107.4
27	1111173-1 10X	176390.94	107.8	162831.72	111.2	63931.69	103.3	97170.38	108.5
28	1111174-1 10X	178789.22	109.3	162448.87	111.0	63135.80	102.0	98827.65	110.3
29	1111180-1 10X	176761.04	108.1	162710.60	111.1	63834.44	103.1	96163.90	107.3
30	1111181-1 10X	176045.86	107.6	162930.05	111.3	63222.25	102.1	96805.80	108.1
31	1111182-1 10X	176897.01	108.1	163914.60	112.0	63503.75	102.6	96117.54	107.3

591 of 618

Batch Summary Report

ISTD Table

	Sample Name	103 Rh (ISTD) [1]		115 In (ISTD) [1]		195 Pt (ISTD) [1]		209 Bi (ISTD) [1]	
		CPS	Recovery%	CPS	Recovery%	CPS	Recovery%	CPS	Recovery%
32	CCV	175951.80	107.6	162794.73	111.2	61793.17	99.8	97489.59	108.8
33	CCB	158076.98	96.6	143314.95	97.9	55732.85	90.0	87290.05	97.4
34	1111183-1 10X	172757.89	105.6	159860.88	109.2	60731.77	98.1	97016.90	108.3
35	1111207-1 10X	172912.11	105.7	158366.05	108.2	61180.55	98.8	95735.18	106.9
36	1111209-1 10X	175655.47	107.4	158737.16	108.4	61351.77	99.1	95002.47	106.0
37	1111210-1 10X	174731.58	106.8	158912.23	108.5	61327.81	99.1	96650.65	107.9
38	1111232-1 10X	176832.62	108.1	161679.74	110.4	64400.47	104.0	98788.16	110.3
39	1111233-1 10X	176976.39	108.2	162910.48	111.3	63195.42	102.1	99556.83	111.1
40	1111234-1 10X	174362.03	106.6	163373.83	111.6	62201.14	100.5	97754.45	109.1
41	1111235-1 10X	174849.13	106.9	161380.74	110.2	63098.30	101.9	96412.94	107.6
42	1111261-1 10X	174731.36	106.8	159771.67	109.1	62238.75	100.5	95711.34	106.8
43	1111104-1 10X	168044.25	102.7	156378.82	106.8	60843.14	98.3	92833.65	103.6
44	CCV	173867.13	106.3	157626.89	107.7	61585.80	99.5	95566.93	106.7
45	CCB	156498.37	95.7	141509.06	96.7	55709.40	90.0	85986.03	96.0
46	IP111118-3MB ...	158632.97	97.0	144547.16	98.7	55940.59	90.4	86598.37	96.7
47	IM111118-3RVS...	170900.48	104.5	154965.12	105.8	61050.33	98.6	95282.65	106.4
48	IM111118-3LCS...	176191.26	107.7	159678.48	109.1	62925.18	101.6	97120.14	108.4
49	1111106-22 10X	172322.65	105.4	158819.83	108.5	61827.02	99.9	97076.80	108.4
50	1111106-22D 10X	172144.09	105.2	159932.26	109.2	61134.24	98.7	96563.16	107.8
51	1111106-22L 50X	170547.17	104.3	158244.08	108.1	60875.84	98.3	97140.50	108.4
52	1111106-22MS ...	170818.16	104.4	158752.32	108.4	61639.35	99.6	96190.91	107.4
53	1111106-22MSD...	172137.25	105.2	157474.18	107.6	62288.75	100.6	95633.93	106.8
54	1111172-1 10X	171470.52	104.8	157303.49	107.4	60149.27	97.2	93846.33	104.8
55	1111172-2 10X	171962.56	105.1	157260.01	107.4	62154.47	100.4	95451.96	106.6
56	CCV	173540.06	106.1	160375.58	109.5	61745.98	99.7	97335.92	108.7
57	CCB	157281.65	96.2	143142.40	97.8	57341.89	92.6	87195.70	97.3
58	1111172-3 10X	172292.51	105.3	161403.83	110.2	61441.45	99.2	96838.58	108.1
59	1111172-4 10X	176213.56	107.7	161408.07	110.2	61829.95	99.9	96634.25	107.9
60	1111172-6 10X	170412.12	104.2	159306.77	108.8	61575.10	99.5	93859.56	104.8
61	1111172-10 10X	175390.34	107.2	161246.69	110.1	61900.29	100.0	95674.93	106.8
62	1111172-5 10X	170833.86	104.4	161098.55	110.0	60832.73	98.3	93316.14	104.2

592 of 618

Batch Summary Report

ISTD Table

	Sample Name	103 Rh (ISTD) [1]		115 In (ISTD) [1]		195 Pt (ISTD) [1]		209 Bi (ISTD) [1]	
		CPS	Recovery%	CPS	Recovery%	CPS	Recovery%	CPS	Recovery%
63	1111134-1 10X	169654.18	103.7	153692.23	105.0	59750.83	96.5	93382.66	104.2
64	1111134-2 10X	166993.76	102.1	152695.96	104.3	59754.96	96.5	93534.76	104.4
65	1111134-3 10X	166198.61	101.6	153104.24	104.6	59831.97	96.6	94117.53	105.1
66	1111161-1 10X	170214.25	104.1	158555.65	108.3	61542.45	99.4	95768.83	106.9
67	1111161-2 10X	174549.26	106.7	159810.84	109.2	62556.41	101.0	96905.61	108.2
68	CCV	172868.88	105.7	158928.69	108.6	60976.86	98.5	98133.82	109.5
69	CCB	153305.12	93.7	142513.73	97.3	54969.85	88.8	86666.14	96.7
70	1111161-3 10X	166797.71	102.0	152275.14	104.0	59182.30	95.6	94519.63	105.5
71	1111161-4 10X	168648.80	103.1	155352.29	106.1	59704.50	96.4	94335.98	105.3
72	IP111117-2MB ...	155216.41	94.9	139790.35	95.5	54859.29	88.6	84965.98	94.8
73	IM111117-2LCS...	169266.95	103.5	154875.70	105.8	60655.16	98.0	93269.10	104.1
74	1111162-1 10X	173175.37	105.9	159966.41	109.3	62833.64	101.5	100955.98	112.7
75	1111162-1D 10X	170748.76	104.4	158108.19	108.0	61270.87	99.0	100469.18	112.2
76	1111162-1L 50X	174359.36	106.6	160008.35	109.3	61003.77	98.5	101033.35	112.8
77	1111162-1MS 10X	168461.57	103.0	155880.35	106.5	60745.68	98.1	100529.90	112.2
78	1111162-1MSD ...	167228.68	102.2	155601.73	106.3	60059.32	97.0	101298.40	113.1
79	1111160-4 10X	170059.55	104.0	156438.62	106.9	60461.30	97.7	101922.79	113.8
80	CCV	169182.61	103.4	156979.08	107.2	60832.73	98.3	96368.86	107.6
81	CCB	152420.01	93.2	139776.96	95.5	54816.07	88.5	85874.70	95.9
82	1111160-5 10X	170028.35	103.9	157609.87	107.7	60939.23	98.4	103888.71	116.0
83	1111160-6 100X	161963.47	99.0	149650.61	102.2	57107.66	92.2	93473.67	104.3
84	1111160-7 100X	170390.20	104.2	156484.62	106.9	60367.03	97.5	96720.95	108.0
85	1111160-8 100X	170853.33	104.5	155891.22	106.5	61475.64	99.3	98181.63	109.6
86	1111160-9 200X	165081.01	100.9	152960.40	104.5	58944.70	95.2	94292.66	105.3
87	1111160-10 200X	164201.64	100.4	150375.31	102.7	57917.40	93.6	94962.35	106.0
88	1111160-11 200X	166629.86	101.9	152416.02	104.1	57844.05	93.4	93618.14	104.5
89	1111160-12 10...	158166.81	96.7	145464.83	99.4	56348.12	91.0	89820.20	100.3
90	1111160-13 100X	167232.48	102.2	151324.98	103.4	58566.91	94.6	93899.46	104.8
91	1111160-14 100X	166860.25	102.0	153050.51	104.5	58821.47	95.0	97221.08	108.5
92	CCV	170802.91	104.4	157314.58	107.5	61247.34	98.9	97201.31	108.5
93	CCB	153500.41	93.8	140007.93	95.6	55749.09	90.0	86521.99	96.6

593 of 618

Batch Summary Report

ISTD Table

	Sample Name	103 Rh (ISTD) [1]		115 In (ISTD) [1]		195 Pt (ISTD) [1]		209 Bi (ISTD) [1]	
		CPS	Recovery%	CPS	Recovery%	CPS	Recovery%	CPS	Recovery%
94	1111160-15 100X	168902.97	103.3	154349.71	105.4	59340.24	95.8	96560.98	107.8
95	1111136-1 10X	167993.99	102.7	158791.81	108.5	59396.93	95.9	91860.20	102.5
96	1111136-1L 50X	172939.72	105.7	162244.03	110.8	61893.49	100.0	96368.62	107.6
97	1111136-1MS 10X	169840.09	103.8	161925.34	110.6	60257.07	97.3	92940.60	103.7
98	1111136-1MSD ...	167667.39	102.5	162075.36	110.7	60203.07	97.2	91290.13	101.9
99	1111136-2 10X	166524.69	101.8	156554.51	106.9	57519.25	92.9	85079.56	95.0
100	1111136-3 10X	180206.89	110.2	168414.00	115.0	62713.64	101.3	94409.55	105.4
101	1111136-4 10X	176138.22	107.7	166207.41	113.5	61133.94	98.7	93524.19	104.4
102	1111136-5 50X	175590.09	107.3	165785.02	113.2	60193.20	97.2	93732.51	104.6
103	1111136-6 10X	151941.16	92.9	148666.36	101.5	50467.08	81.5	72324.68	80.7
104	CCV	189639.42	115.9	175416.09	119.8	62978.07	101.7	101915.80	113.8
105	CCB	169334.01	103.5	153840.73	105.1	57827.28	93.4	89835.30	100.3
106	1111136-7 10X	181499.40	111.0	168556.35	115.1	62204.85	100.5	93282.44	104.1
107	1111136-8 10X	181631.78	111.0	170902.00	116.7	62810.56	101.5	94120.98	105.1
108	1111136-9 10X	154320.43	94.3	150453.90	102.8	49213.47	79.5	72855.01	81.3
109	1111136-10 10X	197433.27	120.7	186897.53	127.7	65428.83	105.7	98952.13	110.5
110	1111136-11 10X	187215.73	114.5	177805.45	121.4	62974.55	101.7	94956.19	106.0
111	1111136-12 10X	188496.48	115.2	176786.50	120.8	62713.22	101.3	98378.85	109.8
112	1111136-13 10X	190319.56	116.4	179436.73	122.6	63733.99	102.9	98351.74	109.8
113	1111136-14 10X	192186.51	117.5	181112.27	123.7	63988.49	103.4	99218.53	110.8
114	1111228-1 100X	193570.99	118.3	177177.21	121.0	64354.22	103.9	102932.80	114.9
115	1111228-2 10X	181606.80	111.0	170352.59	116.4	60859.01	98.3	93718.82	104.6
116	CCV	181937.02	111.2	166904.68	114.0	60996.53	98.5	98384.94	109.8
117	CCB	163773.66	100.1	149308.50	102.0	56632.52	91.5	88144.25	98.4
118	1111228-2L 50X	180616.69	110.4	166757.46	113.9	60899.15	98.4	95365.48	106.5
119	1111228-2MS 10X	174115.48	106.4	164296.97	112.2	60065.75	97.0	91390.05	102.0
120	1111228-2MSD ...	177685.15	108.6	167270.20	114.3	60691.61	98.0	91844.30	102.5
121	1111228-3 10X	180801.69	110.5	171502.23	117.1	61820.19	99.9	92028.89	102.7
122	1111228-4 200X	188983.12	115.5	173882.01	118.8	64698.85	104.5	99429.58	111.0
123	1111228-5 100X	186483.39	114.0	171797.49	117.3	61839.75	99.9	99053.83	110.6
124	1111228-6 10X	158733.73	97.0	151963.00	103.8	51035.96	82.4	75592.43	84.4

594 of 618

Batch Summary Report

ISTD Table

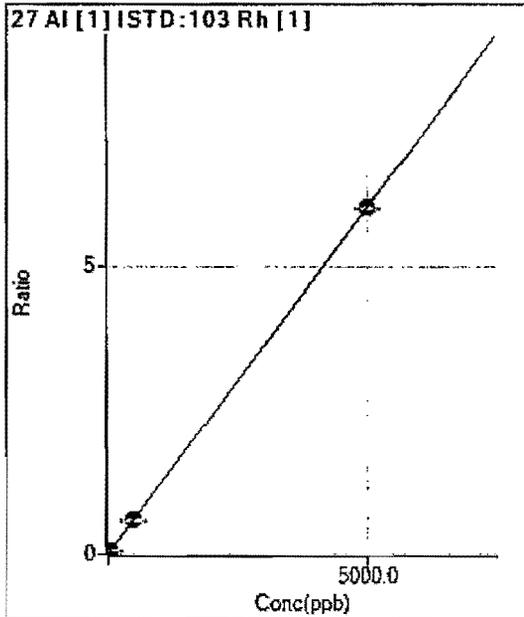
	Sample Name	103 Rh (ISTD) [1]		115 In (ISTD) [1]		195 Pt (ISTD) [1]		209 Bi (ISTD) [1]	
		CPS	Recovery%	CPS	Recovery%	CPS	Recovery%	CPS	Recovery%
125	1111228-7 10X	190772.88	116.6	179941.38	122.9	82138.03	100.4	94651.55	105.7
126	1111228-8 50X	188264.86	115.1	174319.30	119.1	60527.80	97.8	90602.49	101.1
127	1111228-9 200X	193758.38	118.5	177211.58	121.0	61398.43	99.2	95891.84	107.0
128	CCV	185816.65	113.6	172718.57	118.0	64032.81	103.4	98556.66	110.0
129	CCB	165383.28	101.1	151207.80	103.3	55993.72	90.4	89094.25	99.5
130	1111228-10 10X	183947.51	112.5	172748.77	118.0	62078.00	100.3	96080.91	107.3
131	1111228-11 10X	179603.51	109.8	169013.96	115.4	59567.24	96.2	91953.89	102.6
132	1111228-12 10X	154956.13	94.7	151380.42	103.4	48069.06	77.6	72238.37	80.6
133	1111228-13 100X	205638.22	125.7	192656.18	131.6	65713.29	106.1	103095.45	115.1
134	1111228-14 200X	202641.01	123.9	191106.13	130.5	64008.69	103.4	100403.03	112.1
135	CCV	199054.03	121.7	184829.54	126.2	65077.61	105.1	102419.08	114.3
136	CCB	179534.67	109.8	165519.81	113.1	57519.18	92.9	91907.57	102.6

Calibration for 041SMPL_11K21o00.D

Batch Folder: C:\ICPMH\1\DATA\11K21k00.B\
 Analysis File: 11K21k00.batch.xml
 DA Date-Time: 11/22/2011 9:07:21 AM
 Calibration Title:
 Calibration Method: External Calibration
 VIS Interpolation Fit:
 Tune Step: #1 hehe.u

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.D	blank	11/21/2011 10:54:20 AM
2	004CAL.S.D	H/1000	11/21/2011 10:56:30 AM
3	005CAL.S.D	H/100	11/21/2011 10:58:42 AM
4	006CAL.S.D	H/10	11/21/2011 11:00:53 AM
5	007CAL.S.D	HIGH	11/21/2011 11:03:03 AM
6			

Calibration for 041SMPL_11K21o00.D



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	0.000	0.000	113.34	0.0007	P	50.2
2	<input type="checkbox"/>	5.000	5.413	1276.78	0.0072	P	2.1
3	<input type="checkbox"/>	50.000	49.225	10887.37	0.0598	P	5.3
4	<input type="checkbox"/>	500.000	491.862	103588.01	0.5916	P	1.1
5	<input type="checkbox"/>	5000.000	5000.821	1051464.41	6.0081	P	0.7
6	<input type="checkbox"/>	1000.000					

$y = 0.0012 * x + 6.9391E-004$

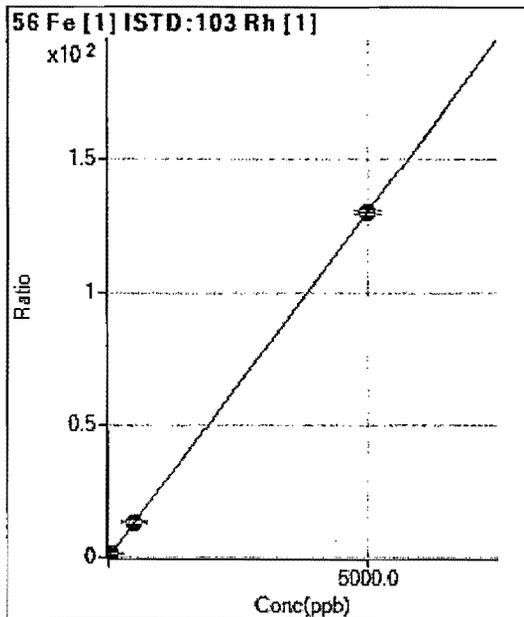
R = 1.0000

DL = 0.8695

BEC = 0.5776

Weight: None

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	0.000	0.000	1646.83	0.0101	P	11.2
2	<input type="checkbox"/>	5.000	7.361	35783.41	0.2017	P	1.6
3	<input type="checkbox"/>	50.000	55.946	266808.82	1.4663	P	0.4
4	<input type="checkbox"/>	500.000	515.667	2352162.67	13.4322	A	0.8
5	<input type="checkbox"/>	5000.000	4998.371	22770419.66	130.1109	A	1.0
6	<input type="checkbox"/>	1000.000					

$y = 0.0260 * x + 0.0101$

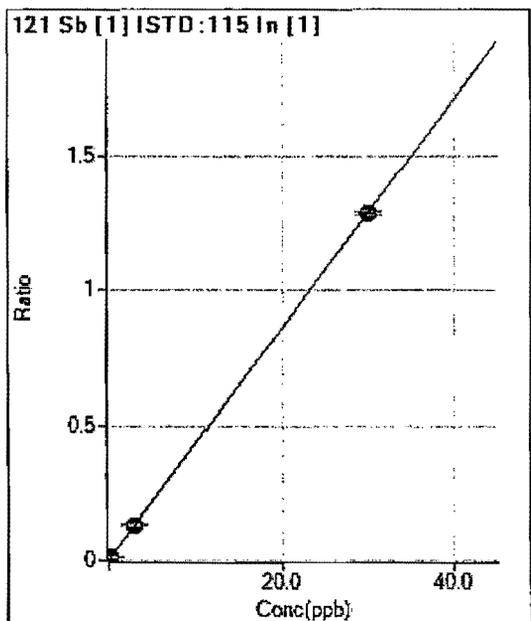
R = 1.0000

DL = 0.1304

BEC = 0.3871

Weight: None

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	0.000	0.000	15.56	0.0001	P	32.0
2	<input type="checkbox"/>	0.030	0.030	224.45	0.0014	P	9.1
3	<input type="checkbox"/>	0.300	0.293	2101.28	0.0127	P	1.4
4	<input type="checkbox"/>	3.000	3.058	20806.20	0.1309	P	3.4
5	<input type="checkbox"/>	30.000	29.994	211496.47	1.2835	P	1.1
6	<input type="checkbox"/>	6.000					

$y = 0.0428 * x + 1.0610E-004$

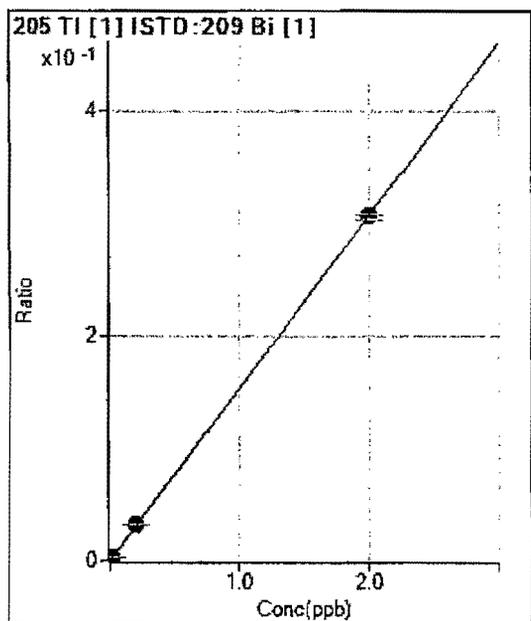
R = 1.0000

DL = 0.002379

BEC = 0.00248

Weight: None

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	0.000	0.000	14.76	0.0002	P	14.9
2	<input type="checkbox"/>	0.002	0.003	54.28	0.0006	P	22.3
3	<input type="checkbox"/>	0.020	0.022	346.20	0.0035	P	5.4
4	<input type="checkbox"/>	0.200	0.207	3134.64	0.0319	P	1.5
5	<input type="checkbox"/>	2.000	1.999	30372.42	0.3065	P	1.3
6	<input type="checkbox"/>	0.400					

$y = 0.1532 * x + 1.6482E-004$

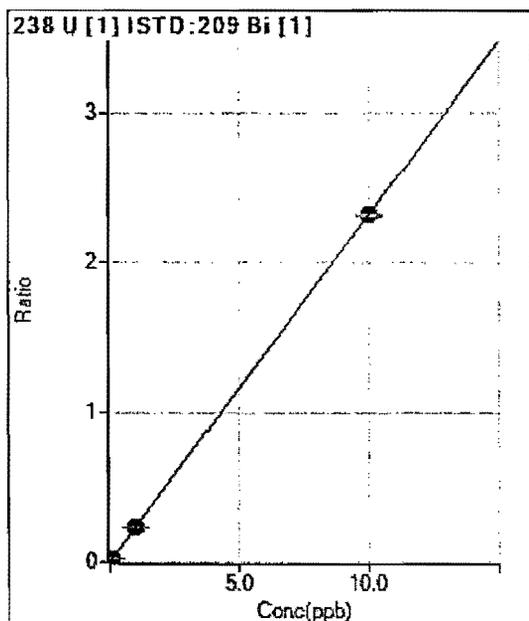
R = 1.0000

DL = 0.0004807

BEC = 0.001076

Weight: None

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	0.000	0.000	22.22	0.0002	P	56.8
2	<input type="checkbox"/>	0.010	0.013	312.23	0.0032	P	7.3
3	<input type="checkbox"/>	0.100	0.104	2409.13	0.0242	P	1.9
4	<input type="checkbox"/>	1.000	1.006	22884.62	0.2331	P	2.1
5	<input type="checkbox"/>	10.000	9.999	229483.60	2.3156	P	0.4
6	<input type="checkbox"/>	2.000					

$y = 0.2315 * x + 2.4806E-004$

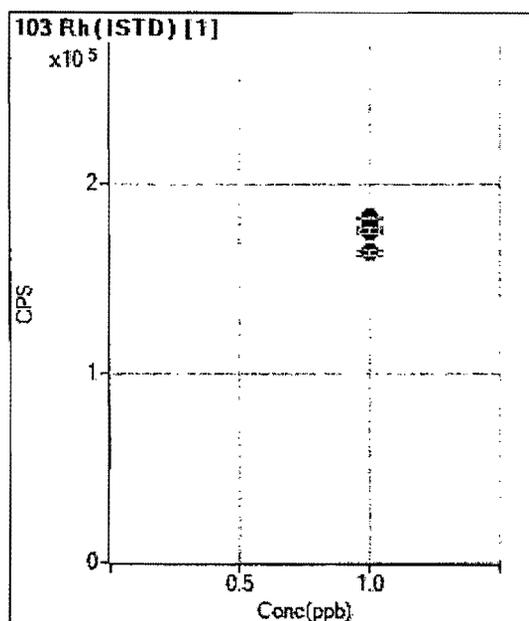
R = 1.0000

DL = 0.001826

BEC = 0.001071

Weight: None

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	1.000		163571.29		P	1.3
2	<input type="checkbox"/>	1.000		177427.74		P	0.5
3	<input type="checkbox"/>	1.000		181965.31		P	0.2
4	<input type="checkbox"/>	1.000		175114.40		P	0.3
5	<input type="checkbox"/>	1.000		175012.90		P	1.3
6	<input type="checkbox"/>	1.000					

Header Information for Analytical Run: Hg111115-2

Analyst: Sheri Lafferty

Standards:

Stock A: 10ppm (ST110725-1)
Stock B: 10ppm (ST110725-2)
Daily standards made by diluting stock solution 100X

Reagents:

See digestion log

Pipettes Used:

M-57 ---- 0.01mL to 0.1mL
M-61 ---- 0.1mL to 1.0mL
M-1010---1.0mL to 5.0mL

Method of Dilution:

2X-----Dilution made by diluting 5.0ml of sample to 10ml final volume.
5X-----Dilution made by diluting 2.0ml of sample to 10ml final volume
10X-----Dilution made by diluting 1.0ml of sample to 10ml final volume
20X-----Dilution made by diluting 0.5ml of sample to 10ml final volume
50X-----Dilution made by diluting 0.2ml of sample to 10ml final volume
100X---Dilution made by diluting 0.1ml of sample to 10ml final volume
500X---Dilution made by diluting a 5X dilution 100X
1000X-Dilution made by diluting a 10X dilution 100X

Daily Maintenance:

1. Check/ Change peristaltic pump tubing
2. Check gas liquid separator for deposits, clean if necessary
3. Check/ Refill rinse water & stannous chloride reservoirs

Daily Maintenance done by: SL

Monthly Maintenance:

1. Check/ Clean sample and reference cells
2. Check/ Change Nafion cartridge

Monthly Maintenance done by: SL 10/20/2011

Report Generated By CETAC QuickTrace

Analyst: sheri.lafferty

Worksheet file: C:\Program Files\QuickTrace\Worksheets\HG111115-2.wsz

Date Started: 11/17/2011 9:09:38 AM

Comment:

Results

Sample Name	Type	Date/Time	Conc (ppb)	%RSD	Flags
Calibration Blank	STD	11/17/11 10:15:33 am	0.00000	0.91	
Replicates			320.4 318.0 316.3 313.5		
Standard #1 (0.20 ppb)	STD	11/17/11 10:17:41 am	0.20000	0.30	
Replicates			2731.2 2735.7 2744.0 2749.4		
Standard #2 (0.50 ppb)	STD	11/17/11 10:19:49 am	0.50000	0.40	
Replicates			6822.0 6849.7 6867.7 6885.6		
Standard #3 (1.0 ppb)	STD	11/17/11 10:21:58 am	1.00000	0.36	
Replicates			13341.9 13395.0 13429.2 13452.4		
Standard #4 (2.0 ppb)	STD	11/17/11 10:24:08 am	2.00000	0.36	
Replicates			25464.3 25554.9 25624.2 25674.5		
Standard #5 (5.0 ppb)	STD	11/17/11 10:26:18 am	5.00000	0.42	
Replicates			64981.6 65259.3 65467.0 65612.1		
Standard #6 (10.0 ppb)	STD	11/17/11 10:28:28 am	10.00000	0.42	
Replicates			127673.6 128217.2 128609.8 128909.0		

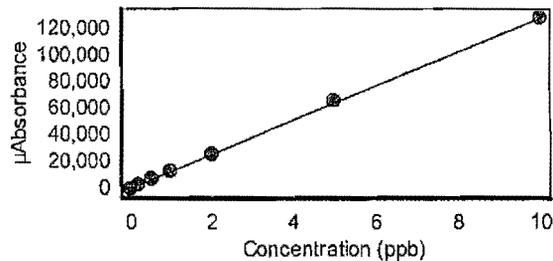
Calibration

Equation: $A = 380.174 + 12829.880C$

R2: 0.99992

SEE: 457.6879

Flags:



ICV	ICV	11/17/11 10:30:40 am	1.01000	0.38
Replicates			13282.0 13337.6 13376.9 13397.9	
% Recovery			101.08	

Sample Name	Type	Date/Time	Conc (ppb)	%RSD	Flags
ICB Replicates	ICB	11/17/11 10:32:51 am	-0.00329	0.88	
			340.0	339.7	338.6
			333.6		
CRA Replicates	UNK	11/17/11 10:34:58 am	0.17800	0.30	
			2656.3	2667.5	2670.6
			2675.4		
HG111115-2MB Replicates	UNK	11/17/11 10:37:06 am	-0.00304	0.10	
			341.7	341.1	341.1
			340.9		
HG111115-2LCS Replicates	UNK	11/17/11 10:39:14 am	1.02000	0.41	
			13425.3	13489.0	13527.0
			13552.9		
HG111115-2LCSD Replicates	UNK	11/17/11 10:41:22 am	1.01000	0.40	
			13242.0	13299.5	13340.2
			13364.3		
1111157-1 Replicates	UNK	11/17/11 10:43:30 am	-0.00605	0.54	
			300.3	302.7	303.2
			304.2		
1111093-1 Replicates	UNK	11/17/11 10:45:39 am	-0.00812	0.72	
			275.1	274.5	275.3
			278.9		
1111093-3 Replicates	UNK	11/17/11 10:47:47 am	-0.00714	0.62	
			288.9	287.3	287.2
			291.0		
1111106-22 Replicates	UNK	11/17/11 10:49:57 am	-0.00880	0.72	
			268.4	269.3	265.2
			266.2		
1111106-22D Replicates	UNK	11/17/11 10:52:06 am	-0.00765	1.23	
			286.0	283.9	278.9
			279.3		
1111106-22L 5X Replicates	UNK	11/17/11 10:54:16 am	-0.00352	0.62	
			332.4	335.7	337.3
			334.5		
CCV Replicates	UNK	11/17/11 10:56:28 am	1.95000	0.87	
			25611.7	25587.4	25417.1
			25131.7		

Sample Name	Type	Date/Time	Conc (ppb)	%RSD	Flags
CCB	UNK	11/17/11 10:58:36 am	-0.00396	0.13	
Replicates			329.0 328.9 329.5 329.8		
1111106-22MS	UNK	11/17/11 11:00:43 am	1.83000	0.53	
Replicates			23710.6 23836.3 23929.7 24004.3		
1111106-22MSD	UNK	11/17/11 11:02:50 am	1.84000	0.52	
Replicates			23871.9 23992.8 24086.2 24158.5		
1111106-35	UNK	11/17/11 11:04:58 am	-0.01970	1.06	
Replicates			128.2 128.8 127.4 125.7		
1111106-48	UNK	11/17/11 11:07:05 am	-0.01090	1.34	
Replicates			238.3 237.3 242.9 243.8		
1111106-61	UNK	11/17/11 11:09:13 am	-0.00725	0.73	
Replicates			290.2 286.6 285.7 285.9		
1111111-1	UNK	11/17/11 11:11:21 am	-0.00932	1.05	
Replicates			257.9 259.4 260.6 264.3		
1111160-1	UNK	11/17/11 11:13:30 am	0.18200	0.63	
Replicates			2700.6 2714.4 2730.3 2739.3		
1111125-24	UNK	11/17/11 11:15:39 am	-0.00746	0.78	
Replicates			282.6 282.9 284.6 287.5		
1111125-37	UNK	11/17/11 11:17:48 am	-0.00629	0.76	
Replicates			302.0 300.2 299.2 296.5		
1111125-50	UNK	11/17/11 11:19:57 am	-0.00574	0.50	
Replicates			307.6 306.3 304.5 307.7		
CCV	UNK	11/17/11 11:22:07 am	2.00000	0.41	
Replicates			25915.3 26026.4 26103.2 26159.2		

Sample Name	Type	Date/Time	Conc (ppb)	%RSD	Flags
CCB	UNK	11/17/11 11:24:17 am	-0.00386	0.59	
Replicates		328.9 332.2 332.4 328.9			
1111125-63	UNK	11/17/11 11:26:24 am	-0.00690	0.76	
Replicates		288.6 293.3 291.3 293.3			
1111125-76	UNK	11/17/11 11:28:31 am	-0.00521	0.89	
Replicates		309.1 314.5 314.7 314.8			
1111152-1	UNK	11/17/11 11:30:38 am	-0.00196	0.52	
Replicates		352.4 355.3 355.9 356.7			
1111152-2	UNK	11/17/11 11:32:46 am	0.00970	0.81	
Replicates		500.4 502.1 506.7 509.3			
1111153-1	UNK	11/17/11 11:34:54 am	2.88000	0.38	
Replicates		37189.2 37344.9 37444.8 37511.6			
1111153-2	UNK	11/17/11 11:37:02 am	7.62000	0.39	
Replicates		97650.6 98057.4 98341.7 98544.2			
1111153-3	UNK	11/17/11 11:39:11 am	13.99000	0.36	DO NOT USE
Replicates		177313.7 177088.6 178471.6 178777.6			SL 11-17-11
1111155-1	UNK	11/17/11 11:42:13 am	-0.02570	7.44	
Replicates		53.4 53.1 49.3 45.4			
1111153-3 2X	UNK	11/17/11 11:47:12 am	4.97000	0.68	
Replicates		63580.8 63979.9 64320.3 64583.0			
CRA	UNK	11/17/11 11:49:21 am	0.15300	0.27	
Replicates		2331.2 2334.0 2343.1 2343.3			
CCV	UNK	11/17/11 11:51:31 am	1.96000	0.44	
Replicates		25388.0 25513.1 25595.8 25645.7			

Sample Name			Type	Date/Time	Conc (ppb)	%RSD	Flags
CCB			UNK	11/17/11 11:53:41 am	-0.00484	0.96	
Replicates	318.5	320.4	319.7	313.6			

Header Information for Analytical Run: Hg111118-1

Analyst: Sheri Lafferty

Standards:

Stock A: 10ppm (ST110725-1)
Stock B: 10ppm (ST110725-2)
Daily standards made by diluting stock solution 100X

Reagents:

See digestion log

Pipettes Used:

M-57 ---- 0.01mL to 0.1mL
M-61 ---- 0.1mL to 1.0mL
M-1010---1.0mL to 5.0mL

Method of Dilution:

2X-----Dilution made by diluting 5.0ml of sample to 10ml final volume.
5X-----Dilution made by diluting 2.0ml of sample to 10ml final volume
10X-----Dilution made by diluting 1.0ml of sample to 10ml final volume
20X-----Dilution made by diluting 0.5ml of sample to 10ml final volume
50X-----Dilution made by diluting 0.2ml of sample to 10ml final volume
100X-----Dilution made by diluting 0.1ml of sample to 10ml final volume
500X---Dilution made by diluting a 5X dilution 100X
1000X-Dilution made by diluting a 10X dilution 100X

Daily Maintenance:

1. Check/ Change peristaltic pump tubing
2. Check gas liquid separator for deposits, clean if necessary
3. Check/ Refill rinse water & stannous chloride reservoirs

Daily Maintenance done by: SL

Monthly Maintenance:

1. Check/ Clean sample and reference cells
2. Check/ Change Nafion cartridge

Monthly Maintenance done by: SL 10/20/2011

Report Generated By CETAC QuickTrace

Analyst: sheri.lafferty

Worksheet file: C:\Program Files\QuickTrace\Worksheets\HG111118-1.wsz

Date Started: 11/18/2011 9:20:46 AM

Comment:

Results

Sample Name	Type	Date/Time	Conc (ppb)	%RSD	Flags
Calibration Blank	STD	11/22/11 08:23:43 am	0.00000	11.04	
Replicates			16.7 18.9 21.6 18.0		
Standard #1 (0.20 ppb)	STD	11/22/11 08:25:51 am	0.20000	0.34	
Replicates			3613.5 3625.1 3634.0 3642.7		
Standard #2 (0.50 ppb)	STD	11/22/11 08:27:59 am	0.50000	0.34	
Replicates			8730.7 8764.3 8784.8 8800.2		
Standard #3 (1.0 ppb)	STD	11/22/11 08:30:08 am	1.00000	0.41	
Replicates			18348.2 18431.6 18486.8 18519.9		
Standard #4 (2.0 ppb)	STD	11/22/11 08:32:18 am	2.00000	0.43	
Replicates			37462.1 37622.1 37755.2 37836.6		
Standard #5 (5.0 ppb)	STD	11/22/11 08:34:28 am	5.00000	0.40	
Replicates			95038.2 95457.9 95744.4 95920.3		
Standard #6 (10.0 ppb)	STD	11/22/11 08:36:38 am	10.00000	0.42	
Replicates			185560.0 186391.2 186961.5 187345.3		

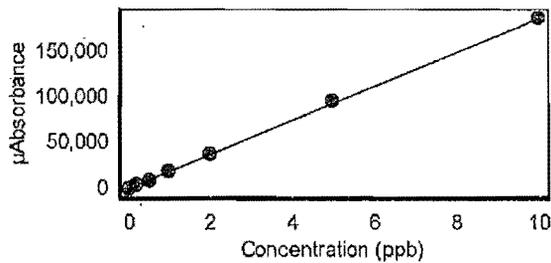
Calibration

Equation: $A = 26.143 + 18740.900C$

R2: 0.99984

SEE: 956.5662

Flags:



ICV	ICV	11/22/11 08:38:49 am	1.01000	0.41
Replicates			18873.7 18950.0 19012.7 19050.9	
% Recovery			101.09	

Sample Name	Type	Date/Time	Conc (ppb)	%RSD	Flags
ICB	ICB	11/22/11 08:41:01 am	-0.00149	207.01	
Replicates		3.3 -2.0 -2.9 -5.3			
CRA	UNK	11/22/11 08:43:08 am	0.19500	0.40	
Replicates		3655.9 3677.6 3683.5 3689.8			
HG111118-1MB	UNK	11/22/11 08:45:16 am	-0.00009	2.80	
Replicates		24.2 23.9 24.3 25.4			
HG111118-1LCS	UNK	11/22/11 08:47:23 am	0.96100	0.40	
Replicates		17945.0 18022.4 18074.0 18111.3			
HG111118-2MB	UNK	11/22/11 08:49:31 am	-0.00015	8.64	
Replicates		26.0 22.4 21.3 23.8			
HG111118-2LCS	UNK	11/22/11 08:51:40 am	0.90800	0.40	
Replicates		16964.8 17034.6 17085.5 17119.9			
1111160-2	UNK	11/22/11 08:53:48 am	0.14500	0.43	
Replicates		2734.8 2744.3 2757.9 2760.1			
1111160-3	UNK	11/22/11 08:55:57 am	0.15200	0.46	
Replicates		2857.5 2867.3 2881.4 2886.8			
1111160-3D	UNK	11/22/11 08:58:06 am	0.15500	0.34	
Replicates		2915.3 2929.0 2935.4 2937.0			
1111160-3L 5X	UNK	11/22/11 09:00:16 am	0.03130	0.40	
Replicates		611.6 609.1 611.5 615.1			
1111160-3MS	UNK	11/22/11 09:02:25 am	2.13000	0.43	
Replicates		39787.7 39969.9 40096.4 40179.5			
CCV	UNK	11/22/11 09:04:35 am	2.01000	0.45	
Replicates		37430.8 37610.8 37732.8 37818.4			

11-22-11
SL

Sample Name	Type	Date/Time	Conc (ppb)	%RSD	Flags
CCB	UNK	11/22/11 09:06:46 am	-0.00211	29.50	
Replicates			-9.3 -12.2 -13.5 -18.8		
/1111160-3MSD	UNK	11/22/11 09:08:53 am	2.11000	0.49	
Replicates			39379.7 39577.3 39729.3 39826.8		
/1111160-4	UNK	11/22/11 09:11:00 am	0.15700	0.41	
Replicates			2955.4 2967.5 2974.7 2984.6		
/1111160-5	UNK	11/22/11 09:13:07 am	0.19600	0.46	
Replicates			3678.8 3691.5 3704.7 3718.3		
/1111160-6	UNK	11/22/11 09:15:15 am	0.20800	0.46	
Replicates			3898.0 3917.0 3928.4 3940.8		
/1111160-7	UNK	11/22/11 09:17:23 am	0.45000	0.50	
Replicates			8403.0 8445.0 8479.0 8500.4		
/1111160-8	UNK	11/22/11 09:19:31 am	0.45400	0.40	
Replicates			8497.5 8533.8 8560.4 8576.6		
/1111160-9	UNK	11/22/11 09:21:39 am	0.42700	0.41	
Replicates			7996.4 8024.5 8049.2 8073.9		
/1111160-10	UNK	11/22/11 09:23:48 am	0.53100	0.53	
Replicates			9907.0 9962.5 10002.3 10028.9		
/1111160-11	UNK	11/22/11 09:25:57 am	0.56200	0.45	
Replicates			10499.6 10548.9 10584.3 10608.8		
/1111160-12	UNK	11/22/11 09:28:07 am	0.46600	0.44	
Replicates			8711.6 8752.7 8783.0 8800.0		
CCV	UNK	11/22/11 09:30:16 am	2.01000	0.48	
Replicates			37475.3 37657.6 37792.7 37896.1		

11-22-11
SL

Sample Name	Type	Date/Time	Conc (ppb)	%RSD	Flags
CCB	UNK	11/22/11 09:58:07 am	-0.00244	31.58	
Replicates			-14.7 -15.1 -20.6 -27.9		
1111162-4	UNK	11/22/11 10:00:14 am	0.40900	0.53	
Replicates			7638.6 7682.8 7714.4 7730.6		
1111162-5	UNK	11/22/11 10:02:21 am	0.43700	0.46	
Replicates			8173.8 8214.7 8238.6 8263.2		
1111162-6	UNK	11/22/11 10:04:29 am	0.58600	0.52	
Replicates			10940.2 10996.3 11035.4 11074.1		
1111162-7	UNK	11/22/11 10:06:36 am	0.34400	0.55	
Replicates			6426.7 6463.3 6491.5 6508.7		
1111162-8	UNK	11/22/11 10:08:44 am	0.08900	0.41	
Replicates			1684.2 1694.0 1699.6 1698.5		
1111162-9	UNK	11/22/11 10:10:52 am	0.09960	0.55	
Replicates			1878.2 1891.2 1897.5 1901.9		
1111162-10	UNK	11/22/11 10:13:01 am	0.15900	0.51	
Replicates			2994.8 3008.7 3021.3 3030.1		
1111162-11	UNK	11/22/11 10:15:10 am	0.06780	0.47	
Replicates			1289.6 1296.3 1298.2 1304.4		
1111162-12	UNK	11/22/11 10:17:19 am	0.09160	0.42	
Replicates			1732.8 1741.2 1746.9 1749.4		
1111162-13	UNK	11/22/11 10:19:28 am	0.11900	0.49	
Replicates			2244.5 2254.8 2261.6 2270.6		
CCV	UNK	11/22/11 10:21:38 am	2.00000	0.60	
Replicates			37273.5 37518.2 37679.0 37796.4		

SL 11-22-11

Sample Name	Type	Date/Time	Conc (ppb)	%RSD	Flags
CCB	UNK	11/22/11 10:23:48 am	-0.00116	80.18	
Replicates					
			7.8	6.2	3.8
					-0.3
11-22-11 1111162-14	UNK	11/22/11 10:25:55 am	0.16000	0.54	
Replicates					
			3007.6	3026.3	3036.4
					3045.6
1111162-15	UNK	11/22/11 10:28:03 am	0.22200	0.57	
Replicates					
			4150.5	4176.8	4194.4
					4204.9
CRA	UNK	11/22/11 10:30:11 am	0.19300	0.68	
Replicates					
			3620.7	3643.5	3665.5
					3676.5
CCV	UNK	11/22/11 10:32:18 am	2.00000	0.55	
Replicates					
			37225.9	37335.8	37488.5
					37700.8
CCB	UNK	11/22/11 10:34:26 am	-0.00233	15.98	
Replicates					
			-13.5	-18.4	-18.0
					-20.0



Miscellaneous

METALS DIGESTION WORKSHEET

ALS Laboratory Group

Digestion Date 11/16/11

HCl Lot No. K29024

Method: 305

Beaker Lot No. 1012120

Initial Prep 805 Final Prep 805

Digestion Batch FP11116-4

HNO₃ Lot No. K23022

SOP/Rev. 826/10

Avg. Beaker Wt. (g) 7.3 Prep Start Time 1400 Prep End Time 1800

Temp 95 °C

Peroxide Lot No. —

Balance(s): 20

Pipet(s): m-70 Digestate Wt. (g) 57.18

Form 805r20.xls (02/10/11)

Note: Each Page is copied as completed and included with the workorder/run documentation; reviewed subsequently

QC Grp	Lab Sample ID	Instrument	Init Vol/Wt (mL/g)	Final Vol. (mL)	Final Wt. (g)	pH	Comments, including metals list
	1111157-1	TK/MS	50.0	50.0	60.5	8.2	137, 138, 140 - MS: Al, Sb, Ti -TK: 19 Targets
	1111138-1						
	1111140-1						
	1111146-1						140, 142 - MS: Cu -TK: 24 Targets
	1111162-14						
	1111185-13	TK					185 - TK: TAL
	-13D	TK/MS					
	-13MS						
	-13MSD						205 - MS: Cu, Ag -TK: 15 Targets
	-24	TK					
	-25						
	-26						
	-27						
	-28						
	-29						
	-30						
	-31						
	-32						
	-33						
	-34						
	-35						
	1111205-1	TK/MS					
	-2						
	FP111116-4MB						
	-4LCS						
	-4RVS						
	FM111116-4LCS						
	-4RVS						
QC Grp	Lab Sample ID	Init Vol/Wt (mL/g)	Final Vol. (mL)	Final Wt. (g)	Spiking Information		
					QC	Amount	
					ST110727-2	.5mL RVS ^{MS}	
					ST111006-1	.5mL MS	
					ST110103-9	.5mL RVS ^{TR}	
					ST110902-2	.5mL C	
					ST110916-7	1mL Z	
					ST111116-1	1mL Cat	

411699

MERCURY DIGESTION - WATER/TCLP

Method 7470 SOP 812/Rev 15 Date Analyzed 11-17-11 File H611115-2*** Init AL (prep.) AL (analysis)Digestion Date 11-15-11 Spike Witness N/A Time Start 1300 Time Finish 1500 Bath Temp 95°C

Tube #	Solution ID	Spike * Solution	Spike Volume (mL)	Final ** Volume (mL)	Comments
STD 1	0 ppb	-	-	20.0	
2	0.2 ppb	A	0.04	20.0	
3	0.5 ppb	A	0.1	20.0	
4	1.0 ppb	A	0.2	20.0	
5	2.0 ppb	A	0.4	20.0	
6	5.0 ppb	A	1.0	20.0	
7	10.0 ppb	A	2.0	20.0	
	ICV	B	0.2	20.0	
	ICB	-	-	20.0	
	CRA-0.2 ppb	A	0.04	20.0	
	IPC (245.1 only)	A	0.4	20.0	
SAMPLES -- Prep. Batch ID(s) <u>H611115-2</u> (see LIMs Prep. Batch report for sample info. (IDs, Aliquots, etc.)					
	CCVs	A	0.4	20.0	<u>2</u> # prepared
	CCBs	-	-	20.0	<u>2</u> # prepared

*** See run report for run log information.

** Laboratory DI water used to make-up to final volume.

*A: 100 ppb Hg solution made from 100x dilution (1 mL/100 mL) of ST110725-1 ID*B: 100 ppb Hg solution made from 100x dilution (1 mL/100 mL) of ST110725-2 ID (2nd source)

See run header for maintenance performed.

Digestion Cups: 1107181Reagents: H₂SO₄ S1144 HNO₃ K23022 KMnO₄ R611114-1 K₂S₂O₈ R611014-1
SnCl₂ R611114-7 Hydroxylamine R611114-2Balance(s) Used: 29Pipet(s) Used: M57 M61

Note: Each page is copied as completed and included with the workorder/run documentation; reviewed subsequently.

407972

MERCURY DIGESTION - SOIL

Method 7471 SOP 812/Rev 5 Date Analyzed 11-22-11 File H611118-1*** Init. AL (prep.) AL (analysis)
 Digestion Date 11-18-11 Spike Witness N/A Time Start 0900 Time Finish 1105 Bath Temp 95°C
8-11-11

Tube #	Solution ID	Spike * Solution	Spike Volume (mL)	Sample **** Aliquot (g)	Final ** Volume (mL)	Comments
STD 1	0 ppb	-	-	-	100.0	
2	0.2 ppb	A	0.2	-	100.0	
3	0.5 ppb	A	0.5	-	100.0	
4	1.0 ppb	A	1.0	-	100.0	
5	2.0 ppb	A	2.0	-	100.0	
6	5.0 ppb	A	5.0	-	100.0	
7	10.0 ppb	A	10.0	-	100.0	
	ICV	B	1.0	-	100.0	
	ICB	-	-	-	100.0	
	CRA-0.2 ppb	A	0.2	-	100.0	
SAMPLES -- Prep. Batch ID(s)		<u>H611118-1</u>		(see LIMS Prep. Batch report for sample info. (IDs, Aliquots, etc.)		
CCVs	A	2.0	-	100.0	<u>3</u> # prepared	
CCBs	-	-	-	100.0	<u>3</u> # prepared	

**** Automated balance entry into LIMS.

*** See run report for run log information.

** Laboratory DI water used to make-up to final volume.

*A: 100 ppb Hg solution made from 100x dilution (1 mL/100 mL) of ST110725-1 ID

*B: 100 ppb Hg solution made from 100x dilution (1 mL/100 mL) of ST110725-2 ID (2nd source)

See run header for maintenance performed.

Digestion Cups: 1105331

Reagents: HNO₃ K23022 HCl K29026 SnCl₂ R611114-7 KMnO₄ R611114-1 Hydroxylamine R611114-2

Balance(s) Used: 29

Pipet(s) Used: M57 M61 MID10

Note: Each page is copied as completed and included with the workorder/run documentation; reviewed subsequently

Percent Moisture

Method SOP642 Revision 9

Lab Name: ALS Environmental -- FC

Date Extracted: 11/30/2011	Balance ID: 31	Validated By: tdc
Date Analyzed: 11/30/2011	Oven ID: 17	Validation Date: 11/30/2011
Analyst: Tanya D. Cleveland	In Oven: 11/29/2011 15:06	Validation Time: 8:52:06 AM
	Out of Oven: 11/30/2011 8:30	

Run ID	Prep Batch ID	QC Batch ID	Lab ID	QC Type	Dish Wt	Wet Wt	Dry Wt	Dry Wt - Dish Wt	Percent Moisture	Percent Solids	RPD
EX111129-3a	EX111129-3	EX111129-3-1	1111160-10	SMP	1.275	10.33	11.27	9.99	3.2	96.8	
EX111129-3a	EX111129-3	EX111129-3-1	1111160-11	SMP	1.306	10.051	11.02	9.71	3.4	96.6	
EX111129-3a	EX111129-3	EX111129-3-2	1111160-12	DUP	1.31	10.57	11.66	10.35	2.1	97.9	1
EX111129-3a	EX111129-3	EX111129-3-2	1111160-12	SMP	1.3	10.264	11.35	10.05	2.1	97.9	
EX111129-3a	EX111129-3	EX111129-3-2	1111160-13	SMP	1.308	10.041	10.71	9.40	6.4	93.6	
EX111129-3a	EX111129-3	EX111129-3-2	1111160-14	SMP	1.302	10.654	11.54	10.23	4.0	96.0	
EX111129-3a	EX111129-3	EX111129-3-2	1111160-15	SMP	1.302	10.121	10.51	9.20	9.1	90.9	
EX111129-3a	EX111129-3	EX111129-3-1	1111160-2	DUP	1.302	10.681	11.28	9.97	6.6	93.4	2
EX111129-3a	EX111129-3	EX111129-3-1	1111160-2	SMP	1.312	10.132	10.78	9.47	6.5	93.5	
EX111129-3a	EX111129-3	EX111129-3-1	1111160-3	SMP	1.298	10.411	11.03	9.73	6.6	93.4	
EX111129-3a	EX111129-3	EX111129-3-1	1111160-4	SMP	1.301	10.663	11.23	9.93	6.9	93.1	
EX111129-3a	EX111129-3	EX111129-3-1	1111160-5	SMP	1.312	10.42	10.86	9.55	8.4	91.6	
EX111129-3a	EX111129-3	EX111129-3-1	1111160-6	SMP	1.295	10.579	11.44	10.14	4.1	95.9	
EX111129-3a	EX111129-3	EX111129-3-1	1111160-7	SMP	1.302	10.331	11.24	9.93	3.9	96.1	
EX111129-3a	EX111129-3	EX111129-3-1	1111160-8	SMP	1.301	10.226	11.06	9.76	4.6	95.4	
EX111129-3a	EX111129-3	EX111129-3-1	1111160-9	SMP	1.308	10.145	11.09	9.78	3.6	96.4	
EX111129-3a	EX111129-3	EX111129-3-1	EX111129-3	MB	1.301	1.301	1.301	0.00	100.0	0.0	
EX111129-3a	EX111129-3	EX111129-3-2	EX111129-3	MB	1.301	1.301	1.301	0.00	100.0	0.0	

QC Types

CAR	Carrier reference sample	DUP	Laboratory Duplicate
LCS	Laboratory Control Sample	LCSD	Laboratory Control Sample Duplicate
MB	Method Blank	MS	Laboratory Matrix Spike
MSD	Laboratory Matrix Spike Duplicate	REP	Sample replicate
RVS	Reporting Level Verification Standar	SMP	Field Sample
SYS	Sample Yield Spike		

Comments:

DUP = Sample Duplicate
Wet Wt = Sample Wet Wt - Dish Wt
Dry Wt = Sample Dry Wt + Dish Wt
Dry Wt - Dish Wt = Sample Dry Wt - Dish Wt
All weight values shown above are expressed in grams.

$$RPD = \frac{(\text{Sample Value} - \text{Duplicate Value})}{2} \times 100$$

$$\% \text{ Solids} = \frac{\text{Dry Weight}}{\text{Wet Weight}} \times 100$$

$$\% \text{ Moisture} = \frac{(\text{Wet Weight} - \text{Dry Weight})}{\text{Wet Weight}} \times 100$$

APPENDIX E

LABORATORY DATA VALIDATION PACKAGES

Review of Section 12 site analytical data (Eberline Analytical Data Package 11-11068)

Data Validation

The subject data package was reviewed and the data appear valid.

The data package contained analytical results for 15 soil samples including one lab duplicate. The lab blanks and spikes for the data package were within tolerances, and MDA's for all results were acceptable. The data package indicated a minimum 21 day holding time to allow for the ingrowth of radon daughters, and analytical results were reported for daughters of U-238 (Ra-226), Th-232, and K-40.

Data Description

The data package contained 10 samples from the mine site including one field duplicate. The data package also contained samples from four background locations; east, north, south, and west. Concentrations of Ra-226 in the north, south, and west background samples ranged from 1.9 to 2.4 pCi/g, and averaged 2.2 pCi/g with a standard deviation of 0.3 pCi/g. The Ra-226 concentration in the east background sample was 30.1 pCi/g, and is considered to be not representative of the true background, and was therefore excluded from the calculation of the average. The U-238 concentration in the east background sample was 12.7 pCi/g, which is also elevated above that expected in a normal background sample. Th-232 in all three samples appeared to be similar to that expected for background concentrations in this area. Three times the average Ra-226 concentration is then 6.6 pCi/g. The average concentration plus 2 standard deviations is then 2.8 pCi/g. Therefore, the criteria to which the site samples will be compared is the lessor of these values or 2.8 pCi/g.

Data Interpretation

Ra-226 concentrations in all 10 samples collected from the Section 12 site ranged from 13.1 to 241 pCi/g, and therefore all exceeded the criteria. U-238 concentrations in all samples appeared to be at concentrations indicative of uranium ore, and not tailings. Th-232 in all samples was at concentrations indicative or normal background levels.

Note that Ra-226 concentrations are based on laboratory analytical results for Bi-214, U-234 concentrations are based on analytical results for Th-234, and Th-232 concentrations are based on analytical results for Ac-228.

Conclusion

Based on gamma isotopic analytical results of Ra-226, it can be concluded that an Observed Release was identified on the Section 12 site. No alpha spectrometry analysis is warranted for these samples. It appears that there is elevated radioactivity, possibly contamination from the site, at the east background location.

Review of Eberline Analytical Data Package 12-01112

The subject data package was reviewed and the data appear valid.

The data package contained analytical results for one soil sample and one lab duplicate. The lab blanks and spikes for the data package were within tolerances, and MDA's for all results were acceptable. This data package was for alpha spectrometry analyses and results were reported for isotopic thorium and isotopic uranium.

The data package was for sample ALSW-01-111107.

The data indicated that the Th-230 was not in equilibrium with the U-238 and U-234, which it would be if the soil contained uranium ore or waste rock. The U-238 concentration was approximately 12.8 pCi/g, the U-234 was 15.8 pCi/g, and the Th-230 was 0.6 pCi/g. It appears that the soil contains some type of processed material where the uranium has been concentrated.

The other isotopes of thorium are members of the Th-232 decay chain and they appear to be at background levels.

.

DATA QUALITY ASSURANCE REVIEW

SITE NAME Section 12 Uranium Mine ORS
WORK ORDER NUMBER 20406.012.035.0673.01 TDD NUMBER TO-0035-11-09-02
PROJECT NUMBER _____ SDG NUMBER 1111160

Weston Solutions, Inc. (WESTON®) has completed a QA review for Work Order Number 20406.012.035.0673.01, SDG No. 1111160, Section 12 Uranium Mine ORS. Fifteen samples were analyzed for metals by ALS Environmental, Inc. Sample numbers are listed below.

SAMPLE NUMBERS

<u>ALSW-01-111107</u>	<u>BKGD-E-31-111107</u>	<u>BKGD-N-31-111107</u>
<u>BKGD-S-31-111107</u>	<u>BKGD-W-31-111107</u>	<u>S12-12-31-111107</u>
<u>S12-14-31-111107</u>	<u>S12-22-31-111107</u>	<u>S12-33-31-111107</u>
<u>S12-34-31-111107</u>	<u>S12-34-32-111107</u>	<u>S12-35-31-111107</u>
<u>S12-52-31-111107</u>	<u>S12-56-31-111107</u>	<u>S12-64-31-111107</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

This data package was validated to determine if Quality Control (QC) specifications were achieved, following *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review* (October, 1999), *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review* (July, 2002), *USEPA Contract Laboratory Program National Functional Guidelines for Chlorinated Dioxin/Furan Data Review* (August, 2002), *Quality Assurance/Quality Control Guidance for Removal Activities* (April, 1990), and the Regional Protocol for Holding Times, Blanks, and VOA Preservation (April 13, 1989). Specific data qualifications are listed in the following discussion.

REVIEWER Gloria J. Switalski DATE January 25, 2012

Data Qualifiers

Data Qualifier Definitions were supplied by the Office of Solid Waste and Emergency Response (September 1989) and are included in the Functional Guidelines. Data qualifiers may be combined (UJ, QJ) with the corresponding combination of meanings. Additional qualifier may be added to provide additional, more specific information (JL, UB, QJK), modifying the meaning of the primary qualifier. Addition qualifiers utilized by WESTON are H, L, K, B, Q, and D.

- U - The material was analyzed for, but was not detected. The associated numerical value is the sample quantitation or detection limit, which has been adjusted for sample weight/sample volume, extraction volume, percent solids, sample dilution or other analysis specific parameters.

An additional qualifier, "B", may be appended to indicate that while the analyte was detected in the sample, the presence of the analyte may be attributable to blank contamination and the analyte is therefore considered undetected with the sample detection or quantitation limit for the analyte being elevated.

- J - The analyte was analyzed for, but the associated numerical value may not be consistent with the amount actually present in the environmental sample or may not be consistent with the sample detection or quantitation limit. The value is an estimated quantity. The data should be seriously considered for decision-making and are usable for many purposes.

An additional qualifier will be appended to the "J" qualifier that indicates the bias in the reported results:

L Low bias

H High bias

K Unknown bias

Q The reported concentration is less than the sample quantitation limit for the specific analyte in the sample.

The L and H qualifier will only be employed when a single qualification is required. When more than one quality control parameter affects the analytical result and a conflict results in assigning a bias, the result will be flagged JK.

- R - Quality Control indicates that data are unusable for all purposes. The analyte was analyzed for, but the presence or absence of the analyte has not been verified. Resampling and reanalysis are necessary for verification to confirm or deny the presence of an analyte.
- N - The analysis indicates the presence of analyte for which there is presumptive evidence to make a "tentative identification."
- D - The concentration reported was determined in the re-analysis of the sample at a secondary dilution.

METALS DATA EVALUATION

1. Analytical Method:

Samples were prepared and analyzed for ICP metals using the procedures specified in **SW-846 Methods 3005A or 3050B/6010B or 6020A**. Samples were prepared and analyzed for mercury using the procedures specified in **SW-846 Methods 7470A or 7471A**.

2. Holding Times and Preservation:

All samples met established holding time criteria of 180 days for ICP metals and 28 days for mercury. Samples were received below 2°C at 0.4°C. Since the samples were not frozen, no qualifications are placed on the data. Sample ALSW-01-111107 was received with a pH >2. The laboratory preserved the sample. Detected and non-detected results in sample ALSW-01-111107 were estimated (JL/UJL) since the sample was improperly preserved.

3. Initial Calibration:

ICP initial calibration included a blank and one or more standards and initial calibration verification results fell within the control limits of 90 to 110 percent of the true values. Mercury initial calibration included a blank and six standard and initial calibration verification results fell within the control limits of 80-120 percent of the true values. No qualifications are placed on the data.

4. Continuing Calibration:

All ICP results fell within the control limits of 90% to 110% of the true values. All mercury results fell within the control limits of 80% to 120% of the true values. No qualifications are placed on the data.

5. CRDL Standard:

All results for the CRDL standard were within the control limits of 70% to 130% of the true values or the sample results were greater than the CRDL action level. No qualifications are placed on the data.

6. Blanks:

A. Laboratory Blanks:

No target analytes were detected in the calibration and preparation blanks at concentrations that warrant blank action. No qualifications are placed on the data.

B. Field Blanks:

No field blank samples were submitted with this analytical package. No qualifications are placed on the data.

7. ICP Interference Check:

All results for the Interference Check Sample were within the control limits of 80% to 120% of the true values. No qualifications are placed on the data.

8. Laboratory Control Sample (LCS):

The recoveries for the LCS were within the established control limits. No qualifications are placed on the data.

9. Duplicate Sample Analysis:

A. Laboratory Duplicate Analysis:

Sample BKGD-E-31-111107 underwent matrix spike/matrix spike duplicate (MS/MSD) analysis for the soil matrix for ICP metals. Sample BKGD-N-31-111107 underwent MS/MSD analysis for the soil matrix for mercury. QC criteria are that the Relative Percent Difference (RPD) values for the duplicate sample analysis be less than 20% for aqueous samples and less than 35% for soil samples for concentrations greater than five times the reporting limit (RL). For sample concentrations less than five times the RL, the QC criteria are within \pm the RL for the aqueous matrix or \pm two times the RL for the soil matrix. QC criteria were not met for the following analytes:

SAMPLE ID	ANALYTE	RPD	AFFECTED SAMPLES	QUALIFIER FLAG
BKGD-E-31-111107	Barium	73	All Soils	JK
	Sodium	126		JK/UJK
	Zinc	55		JK

B. Field Duplicate Analysis:

The following sample pair was submitted as field duplicates for the soil matrix: S12-34-31-111107/S12-34-32-111107. QC criteria are that the RPD values for the field duplicate sample analysis be less than 30% for aqueous samples and less than 50% for soil samples for concentrations greater than five times the RL. For sample concentrations less than five times the RL, the QC criteria is that the absolute difference between the samples is less than two times the RL for aqueous samples or 3.5 times the RL for the soil matrix. QC criteria were not met for the following analyte:

FIELD DUPLICATE PAIR	ANALYTE	RPD	AFFECTED SAMPLES	QUALIFIER FLAG
S12-34-31-111107/ S12-34-32-111107	Zinc	97	All	JK

10. Spiked Sample Analysis:

Sample BKGD-E-31-111107 underwent MS/MSD analysis for the soil matrix for ICP metals. Sample BKGD-N-31-111107 underwent MS/MSD analysis for the soil matrix for mercury. The spike recoveries for the following analytes were outside of the 75%-125% QC recovery limits for analytes whose sample concentration did not exceed the spike concentration by a factor of 4 times or more:

SAMPLE ID	ANALYTE	%R/%R	AFFECTED SAMPLES	QUALIFIER FLAG
BKGD-E-31-111107	Antimony	32/34	All Soils	UJL
	Barium	23/26		JL*
	Zinc	-45/-58		JL*

*Ultimately qualified JK due to high laboratory and/or field duplicate RPD.

Post digestion spike recovery for antimony was acceptable indicating a possible digestion problem and post digestion spike recoveries for barium and zinc were also low indicating a possible matrix effect.

11. ICP Serial Dilution:

Sample BKGD-E-31-111107 underwent serial dilution. The Percent Difference values (%D) for the following analytes exceeded QC limits of 10% for analytes with concentrations greater than 50 times their method detection limit (MDL):

SAMPLE ID	ANALYTE	%D	AFFECTED SAMPLES	QUALIFIER FLAG
BKGD-E-31-111107	Potassium	19	All Soils	JK

12. Sample Quantitation and Reporting Limits:

Concentrations of all reported analytes were correctly calculated.

Some analytes in some samples were analyzed at a dilution. RL for these analytes are elevated as a result of the dilution performed.

13. Laboratory Contact

No laboratory contact was required.

14. Overall Assessment:

All results in the aqueous sample were estimated since the sample was not properly preserved.

The barium, sodium, and zinc results in all soil samples were estimated due to high MS/MSD RPD.

The zinc results in all soil samples were estimated due to high field duplicate RPD.

The antimony, barium, and zinc results in all soil samples were estimated due to low MS/MSD recoveries.

The potassium results in all soil samples were estimated due to high serial dilution %D.

The analytical data is acceptable for use with the qualifications listed above.

Total Recoverable ICP Metals

Method SW6010B

Sample Results

Lab Name: ALS Environmental - FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

Client Project ID: Section 12 Uranium Mine TO0035110902-111110-0001

Field ID: ALSW-01-111107
Lab ID: 1111160-1

Sample Matrix: WATER
% Moisture: N/A
Date Collected: 07-Nov-11
Date Extracted: 16-Nov-11
Date Analyzed: 17-Nov-11
Prep Method: SW3005 Rev A

Prep Batch: IP111116-4
QCBatchID: IP111116-4-5
Run ID: IT111117-2A1
Cleanup: NONE
Basis: As Received
File Name: 111117A.

Sample Aliquot: 50G
Final Volume: 50G
Result Units: MG/L
Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	Reporting Limit	Result Qualifier	EPA Qualifier
7429-90-5	ALUMINUM	1	77	0.2	JL	
7440-36-0	ANTIMONY	1	0.02	0.02	U JL	
7440-38-2	ARSENIC	1	0.052	0.01	JL	
7440-39-3	BARIUM	1	1.1	0.1	JL	
7440-41-7	BERYLLIUM	1	0.0092	0.005	JL	
7440-43-9	CADMIUM	1	0.005	0.005	U JL	
7440-70-2	CALCIUM	1	230	1	JL	
7440-47-3	CHROMIUM	1	0.061	0.01	JL	
7440-48-4	COBALT	1	0.061	0.01	JL	
7440-50-8	COPPER	1	0.14	0.01	JL	
7439-89-6	IRON	1	140	0.1	JL	
7439-92-1	LEAD	1	0.16	0.003	JL	
7439-95-4	MAGNESIUM	1	47	1	JL	
7439-96-5	MANGANESE	1	1.9	0.01	JL	
7439-98-7	MOLYBDENUM	1	0.01	0.01	U JL	
7440-02-0	NICKEL	1	0.1	0.02	JL	
7440-09-7	POTASSIUM	1	42	1	JL	
7782-49-2	SELENIUM	1	0.005	0.005	U JL	
7440-22-4	SILVER	1	0.01	0.01	U JL	
7440-23-5	SODIUM	1	18	1	JL	
7440-28-0	THALLIUM	1	0.01	0.01	U JL	
7440-31-5	TIN	1	0.05	0.05	U JL	
7440-62-2	VANADIUM	1	0.19	0.01	JL	
7440-66-6	ZINC	1	0.42	0.02	JL	

Data Package ID: #1111160-1

Handwritten signature and date: 11/30/11

Date Printed: Wednesday, November 30, 2011

ALS Environmental -- FC

Page 1 of 30

LIMS Version: 6.543

Total ICP Metals

Method SW6010B

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

Client Project ID: Section 12 Uranium Mine TO0035110902-111110-0001

Field ID: BKGD-E-31-111107	Sample Matrix: SOIL	Prep Batch: IP111117-1	Sample Aliquot: 1.02G
Lab ID: 1111160-2	% Moisture: 6.5	QCBatchID: IP111117-1-3	Final Volume: 100ML
	Date Collected: 07-Nov-11	Run ID: IT111118-2A1	Result Units: MG/KG
	Date Extracted: 17-Nov-11	Cleanup: NONE	Clean DF: 1
	Date Analyzed: 18-Nov-11	Basis: Dry Weight	
	Prep Method: SW3050 Rev B	File Name: 111118A.	

CASNO	Target Analyte	Dilution Factor	Result	Reporting Limit	Result Qualifier	EPA Qualifier
7429-90-5	ALUMINUM	1	12000	21		
7440-36-0	ANTIMONY	1	2.1	2.1	U	X
7440-38-2	ARSENIC	1	5.9	1		
7440-39-3	BARIUM	1	270	10	JK	X
7440-41-7	BERYLLIUM	1	0.78	0.52		
7440-43-9	CADMUM	1	0.52	0.52	U	
7440-70-2	CALCIUM	1	20000	100		
7440-47-3	CHROMIUM	1	9	1		
7440-48-4	COBALT	1	5.6	1		
7440-50-8	COPPER	1	13	1		
7439-89-6	IRON	1	19000	10		
7439-92-1	LEAD	1	15	0.31		
7439-95-4	MAGNESIUM	1	4400	100		
7439-96-5	MANGANESE	1	220	1		
7439-98-7	MOLYBDENUM	1	1	1	U	
7440-02-0	NICKEL	1	12	2.1		
7440-09-7	POTASSIUM	1	4900	100	JK	EN
7782-49-2	SELENIUM	1	2.1	0.52		
7440-22-4	SILVER	1	1	1	U	
7440-23-5	SODIUM	1	900	100	JK	X
7440-28-0	THALLIUM	1	1.1	1		
7440-31-5	TIN	1	5.2	5.2	U	
7440-62-2	VANADIUM	1	22	1		
7440-66-6	ZINC	1	140	2.1	JK	X

1/30/12

Data Package ID: *it1111160-1*

Total ICP Metals

Method SW6010B

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Field ID: BKGD-N-31-111107

Lab ID: 1111160-3

Sample Matrix: SOIL

% Moisture: 6.6

Date Collected: 07-Nov-11

Date Extracted: 17-Nov-11

Date Analyzed: 18-Nov-11

Prep Method: SW3050 Rev B

Prep Batch: IP111117-1

QC Batch ID: IP111117-1-3

Run ID: IT111118-2A1

Cleanup: NONE

Basis: Dry Weight

File Name: 111118A.

Sample Allquot: 1.028G

Final Volume: 100ML

Result Units: MG/KG

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	Reporting Limit	Result Qualifier	EPA Qualifier
7429-90-5	ALUMINUM	1	15000	21		
7440-36-0	ANTIMONY	1	2.1	2.1	JK	
7440-38-2	ARSENIC	1	7	1		
7440-39-3	BARIUM	1	120	10	JK	
7440-41-7	BERYLLIUM	1	1	0.52		
7440-43-9	CADMIUM	1	0.52	0.52	U	
7440-70-2	CALCIUM	1	17000	100		
7440-47-3	CHROMIUM	1	11	1		
7440-48-4	COBALT	1	7.4	1		
7440-50-8	COPPER	1	16	1		
7439-89-6	IRON	5	22000	52		
7439-92-1	LEAD	5	17	1.6		
7439-95-4	MAGNESIUM	1	5200	100		
7439-96-5	MANGANESE	1	230	1		
7439-98-7	MOLYBDENUM	1	1	1	U	
7440-02-0	NICKEL	1	15	2.1		
7440-09-7	POTASSIUM	1	4400	100	JK	
7782-49-2	SELENIUM	5	2.6	2.6	U	
7440-22-4	SILVER	1	1	1	U	
7440-23-5	SODIUM	1	110	100	JK	
7440-28-0	THALLIUM	5	5.2	5.2	U	
7440-31-5	TIN	1	5.2	5.2	U	
7440-62-2	VANADIUM	5	19	5.2		
7440-66-6	ZINC	1	59	2.1	JK	

Data Package ID: #1111160-1

Date Printed: Wednesday, November 30, 2011

ALS Environmental -- FC

LIMS Version: 6.543

Page 5 of 30

Handwritten signature and date: 1/25/12

Total ICP Metals

Method SW6010B

Sample Results

Lab Name: ALS Environmental – FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Field ID: BKGD-S-31-111107 Lab ID: 1111160-4	Sample Matrix: SOIL % Moisture: 6.9 Date Collected: 07-Nov-11 Date Extracted: 17-Nov-11 Date Analyzed: 18-Nov-11 Prep Method: SW3050 Rev B	Prep Batch: IP111117-1 QCBatchID: IP111117-1-3 Run ID: IT111118-2A1 Cleanup: NONE Basis: Dry Weight File Name: 111118A.	Sample Aliquot: 1.018G Final Volume: 100ML Result Units: MG/KG Clean DF: 1
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CASNO	Target Analyte	Dilution Factor	Result	Reporting Limit	Result Qualifier	EPA Qualifier
7429-90-5	ALUMINUM	1	14000	21		
7440-36-0	ANTIMONY	1	2.1	2.1	U	
7440-38-2	ARSENIC	1	6.2	1.1		
7440-39-3	BARIIUM	1	120	11	JK	
7440-41-7	BERYLLIUM	1	1	0.53		
7440-43-9	CADMIUM	1	0.53	0.53	U	
7440-70-2	CALCIUM	1	16000	110		
7440-47-3	CHROMIUM	1	11	1.1		
7440-48-4	COBALT	1	7.1	1.1		
7440-50-8	COPPER	1	16	1.1		
7439-89-6	IRON	5	22000	53		
7439-92-1	LEAD	5	22	1.6		
7439-95-4	MAGNESIUM	1	5200	110		
7439-96-5	MANGANESE	1	200	1.1		
7439-98-7	MOLYBDENUM	1	1.1	1.1	U	
7440-02-0	NICKEL	1	14	2.1		
7440-09-7	POTASSIUM	1	3900	110	JK	
7782-49-2	SELENIUM	5	2.6	2.6	U	
7440-22-4	SILVER	1	1.1	1.1	U	
7440-23-5	SODIUM	1	110	110	U	
7440-28-0	THALLIUM	5	5.3	5.3	U	
7440-31-5	TIN	1	5.3	5.3	U	
7440-62-2	VANADIUM	5	17	5.3		
7440-66-6	ZINC	1	59	2.1	JK	

JK 1/25/12

Data Package ID: it1111160-1

Total ICP Metals

Method SW6010B

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Field ID: BKGD-W-31-111107
Lab ID: 1111160-5

Sample Matrix: SOIL
% Moisture: 8.4
Date Collected: 07-Nov-11
Date Extracted: 17-Nov-11
Date Analyzed: 18-Nov-11
Prep Method: SW3050 Rev B

Prep Batch: IP111117-1
QCBatchID: IP111117-1-3
Run ID: IT111118-2A1
Cleanup: NONE
Basis: Dry Weight
File Name: 111118A.

Sample Aliquot: 1.004G
Final Volume: 100 ML
Result Units: MG/KG
Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	Reporting Limit	Result Qualifier	EPA Qualifier
7429-90-5	ALUMINUM	1	14000	22		
7440-36-0	ANTIMONY	1	2.2	2.2	U	
7440-38-2	ARSENIC	1	7.6	1.1		
7440-39-3	BARIUM	1	140	11	JK	
7440-41-7	BERYLLIUM	1	1.1	0.54		
7440-43-9	CADMIUM	1	0.54	0.54	U	
7440-70-2	CALCIUM	1	18000	110		
7440-47-3	CHROMIUM	1	11	1.1		
7440-48-4	COBALT	1	8.2	1.1		
7440-50-8	COPPER	1	19	1.1		
7439-89-6	IRON	5	24000	54		
7439-92-1	LEAD	5	18	1.6		
7439-95-4	MAGNESIUM	1	5900	110		
7439-96-5	MANGANESE	1	250	1.1		
7439-98-7	MOLYBDENUM	1	1.1	1.1	U	
7440-02-0	NICKEL	1	15	2.2		
7440-09-7	POTASSIUM	1	4300	110	JK	
7782-49-2	SELENIUM	5	2.7	2.7	U	
7440-22-4	SILVER	1	1.1	1.1	U	
7440-23-5	SODIUM	1	110	110	U	
7440-28-0	THALLIUM	5	5.4	5.4	U	
7440-31-5	TIN	1	5.4	5.4	U	
7440-62-2	VANADIUM	5	19	5.4		
7440-66-6	ZINC	1	65	2.2	JK	

Handwritten signature and date: 1/25/12

Data Package ID: it1111160-1

Total ICP Metals

Method SW6010B

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Field ID: S12-12-31-111107

Lab ID: 1111160-6

Sample Matrix: SOIL

% Moisture: 4.1

Date Collected: 07-Nov-11

Date Extracted: 17-Nov-11

Date Analyzed: 18-Nov-11

Prep Method: SW3050 Rev B

Prep Batch: IP111117-1

QCBatchID: IP111117-1-3

Run ID: IT111118-2A1

Cleanup: NONE

Basis: Dry Weight

File Name: 111118A.

Sample Allquot: 1.014G

Final Volume: 100ML

Result Units: MG/KG

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	Reporting Limit	Result Qualifier	EPA Qualifier
7429-90-5	ALUMINUM	1	4800	21		
7440-36-0	ANTIMONY	1	2.1	2.1	U	
7440-38-2	ARSENIC	1	5.3	1		
7440-39-3	BARIUM	1	25	10	JK	
7440-41-7	BERYLLIUM	1	0.51	0.51	U	
7440-43-9	CADMIUM	1	0.51	0.51	U	
7440-70-2	CALCIUM	1	7500	100		
7440-47-3	CHROMIUM	1	2.5	1		
7440-48-4	COBALT	1	2.2	1		
7440-50-8	COPPER	1	3.7	1		
7439-89-6	IRON	1	9800	10		
7439-92-1	LEAD	1	7.8	0.31		
7439-95-4	MAGNESIUM	1	1800	100		
7439-96-5	MANGANESE	1	130	1		
7439-98-7	MOLYBDENUM	1	1	1	U	
7440-02-0	NICKEL	1	3	2.1		
7440-09-7	POTASSIUM	1	790	100	JK	
7782-49-2	SELENIUM	1	11	0.51		
7440-22-4	SILVER	1	1	1	U	
7440-23-5	SODIUM	1	100	100	U	
7440-28-0	THALLIUM	1	1	1	U	
7440-31-5	TIN	1	5.1	5.1	U	
7440-62-2	VANADIUM	1	26	1		
7440-66-6	ZINC	1	18	2.1	JK	

JK 1/25/12

Data Package ID: #1111160-1

Total ICP Metals

Method SW6010B

Sample Results

Lab Name: ALS Environmental -- FC
 Work Order Number: 1111160
 Client Name: Weston Solutions, Inc.
 Client/Project ID: Section 12 Uranium Mine TO0035110902-111110-0001

Field ID: S12-14-31-111107	Sample Matrix: SOIL	Prep Batch: IP111117-1	Sample Aliquot: 1.038G
Lab ID: 1111160-7	% Moisture: 3.9	QCBatchID: IP111117-1-3	Final Volume: 100ML
	Date Collected: 07-Nov-11	Run ID: IT111118-2A1	Result Units: MG/KG
	Date Extracted: 17-Nov-11	Cleanup: NONE	Clean DF: 1
	Date Analyzed: 18-Nov-11	Basis: Dry Weight	
	Prep Method: SW3050 Rev B	File Name: 111118A.	

CASNO	Target Analyte	Dilution Factor	Result	Reporting Limit	Result Qualifier	EPA Qualifier
7429-90-5	ALUMINUM	1	8600	20		
7440-36-0	ANTIMONY	1	2	2	JL	
7440-38-2	ARSENIC	1	5.4	1		
7440-39-3	BARIUM	1	56	10	JL	
7440-41-7	BERYLLIUM	1	0.63	0.5		
7440-43-9	CADMIUM	1	0.5	0.5	U	
7440-70-2	CALCIUM	1	16000	100		
7440-47-3	CHROMIUM	1	5.7	1		
7440-48-4	COBALT	1	3.8	1		
7440-50-8	COPPER	1	8.4	1		
7439-89-6	IRON	1	15000	10		
7439-92-1	LEAD	1	16	0.3		
7439-95-4	MAGNESIUM	1	3000	100		
7439-96-5	MANGANESE	1	240	1		
7439-98-7	MOLYBDENUM	1	1	1	U	
7440-02-0	NICKEL	1	7.1	2		
7440-09-7	POTASSIUM	1	2800	100	JL	
7782-49-2	SELENIUM	1	11	0.5		
7440-22-4	SILVER	1	1	1	U	
7440-23-5	SODIUM	1	100	100	JL	
7440-28-0	THALLIUM	1	1	1	U	
7440-31-5	TIN	1	5	5	U	
7440-62-2	VANADIUM	1	33	1		
7440-66-6	ZINC	1	32	2	JL	

1/25/12

Data Package ID: *it1111160-1*

Total ICP Metals

Method SW6010B

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Field ID: S12-22-31-111107

Lab ID: 1111160-8

Sample Matrix: SOIL

% Moisture: 4.6

Date Collected: 07-Nov-11

Date Extracted: 17-Nov-11

Date Analyzed: 18-Nov-11

Prep Method: SW3050 Rev B

Prep Batch: IP111117-1

QCBatchID: IP111117-1-3

Run ID: IT111118-2A1

Cleanup: NONE

Basis: Dry Weight

File Name: 111118A.

Sample Allquot: 1.004G

Final Volume: 100ML

Result Units: MG/KG

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	Reporting Limit	Result Qualifier	EPA Qualifier
7429-90-5	ALUMINUM	1	9300	21		
7440-36-0	ANTIMONY	1	2.1	2.1	JL	
7440-38-2	ARSENIC	1	6.8	1		
7440-39-3	BARIUM	1	62	10	JK	
7440-41-7	BERYLLIUM	1	0.68	0.52		
7440-43-9	CADMIUM	1	0.52	0.52	U	
7440-70-2	CALCIUM	1	15000	100		
7440-47-3	CHROMIUM	1	6.4	1		
7440-48-4	COBALT	1	4.2	1		
7440-50-8	COPPER	1	9.2	1		
7439-89-6	IRON	1	17000	10		
7439-92-1	LEAD	1	16	0.31		
7439-95-4	MAGNESIUM	1	3300	100		
7439-96-5	MANGANESE	1	220	1		
7439-98-7	MOLYBDENUM	1	1	1	U	
7440-02-0	NICKEL	1	7.7	2.1		
7440-09-7	POTASSIUM	1	2700	100	JK	
7782-49-2	SELENIUM	1	8.2	0.52		
7440-22-4	SILVER	1	1	1	U	
7440-23-5	SODIUM	1	100	100	JL	
7440-28-0	THALLIUM	1	1	1	U	
7440-31-5	TIN	1	5.2	5.2	U	
7440-62-2	VANADIUM	1	31	1		
7440-66-6	ZINC	1	38	2.1	JK	

Data Package ID: #1111160-1

Date Printed: Wednesday, November 30, 2011

ALS Environmental -- FC

Page 15 of 30

LIMS Version: 6.543

Total ICP Metals

Method SW6010B

Sample Results

Lab Name: ALS Environmental -- FC
 Work Order Number: 1111160
 Client Name: Weston Solutions, Inc.
 ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Field ID: S12-33-31-111107	Sample Matrix: SOIL	Prep Batch: IP111117-1	Sample Allquot: 1.03G
Lab ID: 1111160-9	% Moisture: 3.6	QCBatchID: IP111117-1-3	Final Volume: 100ML
	Date Collected: 07-Nov-11	Run ID: IT111118-2A1	Result Units: MG/KG
	Date Extracted: 17-Nov-11	Cleanup: NONE	Clean DF: 1
	Date Analyzed: 18-Nov-11	Basis: Dry Weight	
	Prep Method: SW3050 Rev B	File Name: 111118A.	

CASNO	Target Analyte	Dilution Factor	Result	Reporting Limit	Result Qualifier	EPA Qualifier
7429-90-5	ALUMINUM	1	2600	20		
7440-36-0	ANTIMONY	1	2	2	U	
7440-38-2	ARSENIC	1	4.6	1		
7440-39-3	BARIUM	1	12	10	U	
7440-41-7	BERYLLIUM	1	0.5	0.5	U	
7440-43-9	CADMIUM	1	0.5	0.5	U	
7440-70-2	CALCIUM	1	11000	100		
7440-47-3	CHROMIUM	1	1.1	1		
7440-48-4	COBALT	1	1.3	1		
7440-50-8	COPPER	1	1.9	1		
7439-89-6	IRON	1	7400	10		
7439-92-1	LEAD	1	11	0.3		
7439-95-4	MAGNESIUM	1	1200	100		
7439-96-5	MANGANESE	1	160	1		
7439-98-7	MOLYBDENUM	1	1	1	U	
7440-02-0	NICKEL	1	2	2	U	
7440-09-7	POTASSIUM	1	420	100	U	
7782-49-2	SELENIUM	1	8.9	0.5		
7440-22-4	SILVER	1	1	1	U	
7440-23-5	SODIUM	1	100	100	U	
7440-28-0	THALLIUM	1	1	1	U	
7440-31-5	TIN	1	5	5	U	
7440-62-2	VANADIUM	1	56	1		
7440-66-6	ZINC	1	10	2	U	

8/1/12

Data Package ID: #1111160-1

Total ICP Metals

Method SW6010B

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

Client Project ID: Section 12 Uranium Mine TO0035110902-111110-0001

Field ID: S12-34-31-111107

Lab ID: 1111160-10

Sample Matrix: SOIL

% Moisture: 3.2

Date Collected: 07-Nov-11

Date Extracted: 17-Nov-11

Date Analyzed: 18-Nov-11

Prep Method: SW3050 Rev B

Prep Batch: IP111117-1

QCBatchID: IP111117-1-3

Run ID: IT111118-2A1

Cleanup: NONE

Basis: Dry Weight

File Name: 111118A.

Sample Aliquot: 1.036 G

Final Volume: 100ML

Result Units: MG/KG

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	Reporting Limit	Result Qualifier	EPA Qualifier
7429-90-5	ALUMINUM	1	3100	20		
7440-36-0	ANTIMONY	1	2	2	U	
7440-38-2	ARSENIC	1	4.5	1		
7440-39-3	BARIUM	1	13	10	JK	
7440-41-7	BERYLLIUM	1	0.5	0.5	U	
7440-43-9	CADMIUM	1	0.5	0.5	U	
7440-70-2	CALCIUM	1	7100	100		
7440-47-3	CHROMIUM	1	1.4	1		
7440-48-4	COBALT	1	1.4	1		
7440-50-8	COPPER	1	4.1	1		
7439-89-6	IRON	1	8000	10		
7439-92-1	LEAD	1	21	0.3		
7439-95-4	MAGNESIUM	1	1200	100		
7439-96-5	MANGANESE	1	130	1		
7439-98-7	MOLYBDENUM	1	1.2	1		
7440-02-0	NICKEL	1	2	2	U	
7440-09-7	POTASSIUM	1	490	100	JK	
7782-49-2	SELENIUM	1	8.7	0.5		
7440-22-4	SILVER	1	1	1	U	
7440-23-5	SODIUM	1	100	100	U	
7440-28-0	THALLIUM	1	1	1	U	
7440-31-5	TIN	1	5	5	U	
7440-62-2	VANADIUM	1	57	1		
7440-66-6	ZINC	1	46	2	JK	

Data Package ID: #1111160-1

Date Printed: Wednesday, November 30, 2011

ALS Environmental -- FC

Page 19 of 30

LIMS Version: 6.543

Total ICP Metals

Method SW6010B

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Field ID: S12-34-32-111107
Lab ID: 1111160-11

Sample Matrix: SOIL
% Moisture: 3.4
Date Collected: 07-Nov-11
Date Extracted: 17-Nov-11
Date Analyzed: 18-Nov-11
Prep Method: SW3050 Rev B

Prep Batch: IP111117-1
QCBatchID: IP111117-1-3
Run ID: IT111118-2A1
Cleanup: NONE
Basis: Dry Weight
File Name: 111118A.

Sample Aliquot: 1.024 G
Final Volume: 100ML
Result Units: MG/KG
Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	Reporting Limit	Result Qualifier	EPA Qualifier
7429-90-5	ALUMINUM	1	2900	20		
7440-36-0	ANTIMONY	1	2	2	U	
7440-38-2	ARSENIC	1	3.7	1		
7440-39-3	BARIUM	1	12	10	JK	
7440-41-7	BERYLLIUM	1	0.51	0.51	U	
7440-43-9	CADMIUM	1	0.51	0.51	U	
7440-70-2	CALCIUM	1	7500	100		
7440-47-3	CHROMIUM	1	1.3	1		
7440-48-4	COBALT	1	1.3	1		
7440-50-8	COPPER	1	2.6	1		
7439-89-6	IRON	1	7800	10		
7439-92-1	LEAD	1	15	0.3		
7439-95-4	MAGNESIUM	1	1100	100		
7439-96-5	MANGANESE	1	130	1		
7439-98-7	MOLYBDENUM	1	1	1	U	
7440-02-0	NICKEL	1	2	2	U	
7440-09-7	POTASSIUM	1	470	100	JK	
7782-49-2	SELENIUM	1	8.5	0.51		
7440-22-4	SILVER	1	1	1	U	
7440-23-5	SODIUM	1	100	100	U	
7440-28-0	THALLIUM	1	1	1	U	
7440-31-5	TIN	1	5.1	5.1	U	
7440-62-2	VANADIUM	1	55	1		
7440-66-6	ZINC	1	16	2	JK	

8/1/05/12

Data Package ID: it1111160-1

Total ICP Metals

Method SW6010B

Sample Results

Lab Name: ALS Environmental -- FC
 Work Order Number: 1111160
 Client Name: Weston Solutions, Inc.
 ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Field ID: S12-35-31-111107 Lab ID: 1111160-12	Sample Matrix: SOIL % Moisture: 2.1 Date Collected: 07-Nov-11 Date Extracted: 17-Nov-11 Date Analyzed: 18-Nov-11 Prep Method: SW3050 Rev B	Prep Batch: IP111117-1 QCBatchID: IP111117-1-3 Run ID: IT111118-2A1 Cleanup: NONE Basis: Dry Weight File Name: 111118A	Sample Aliquot: 1.019G Final Volume: 100ML Result Units: MG/KG Clean DF: 1
--	---	---	---

CASNO	Target Analyte	Dilution Factor	Result	Reporting Limit	Result Qualifier	EPA Qualifier
7429-90-5	ALUMINUM	1	3400	20		
7440-36-0	ANTIMONY	1	2	2	U	
7440-38-2	ARSENIC	1	5.5	1		
7440-39-3	BARIUM	1	22	10	JK	
7440-41-7	BERYLLIUM	1	0.57	0.5		
7440-43-9	CADMIUM	1	0.5	0.5	U	
7440-70-2	CALCIUM	1	14000	100		
7440-47-3	CHROMIUM	1	1.8	1		
7440-48-4	COBALT	1	1.7	1		
7440-50-8	COPPER	1	2.4	1		
7439-89-6	IRON	1	9200	10		
7439-92-1	LEAD	1	17	0.3		
7439-95-4	MAGNESIUM	1	1500	100		
7439-96-5	MANGANESE	1	210	1		
7439-98-7	MOLYBDENUM	1	1.5	1		
7440-02-0	NICKEL	1	2	2	U	
7440-09-7	POTASSIUM	1	530	100	JK	
7782-49-2	SELENIUM	1	8	0.5		
7440-22-4	SILVER	1	1	1	U	
7440-23-5	SODIUM	1	100	100	U	
7440-28-0	THALLIUM	1	1	1	U	
7440-31-5	TIN	1	5	5	U	
7440-62-2	VANADIUM	1	88	1		
7440-86-6	ZINC	1	13	2	JK	

JK
1/05/12

Data Package ID: it1111160-1

Total ICP Metals

Method SW6010B

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine T00035110902-111110-0001

Field ID: S12-52-31-111107
Lab ID: 1111160-13

Sample Matrix: SOIL
% Moisture: 6.4
Date Collected: 07-Nov-11
Date Extracted: 17-Nov-11
Date Analyzed: 18-Nov-11
Prep Method: SW3050 Rev B

Prep Batch: IP111117-1
QC Batch ID: IP111117-1-3
Run ID: IT111118-2A1
Cleanup: NONE
Basis: Dry Weight
File Name: 111118A.

Sample Aliquot: 1.026 G
Final Volume: 100 ML
Result Units: MG/KG
Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	Reporting Limit	Result Qualifier	EPA Qualifier
7429-90-5	ALUMINUM	1	4700	21		
7440-36-0	ANTIMONY	1	2.1	2.1	U JKL	
7440-38-2	ARSENIC	1	5.2	1		
7440-39-3	BARIUM	1	19	10	JL	
7440-41-7	BERYLLIUM	1	0.52	0.52	U	
7440-43-9	CADMIUM	1	0.52	0.52	U	
7440-70-2	CALCIUM	1	8600	100		
7440-47-3	CHROMIUM	1	1.8	1		
7440-48-4	COBALT	1	1.9	1		
7440-50-8	COPPER	1	2.8	1		
7439-89-6	IRON	1	10000	10		
7439-92-1	LEAD	1	11	0.31		
7439-95-4	MAGNESIUM	1	1900	100		
7439-96-5	MANGANESE	1	120	1		
7439-98-7	MOLYBDENUM	1	1	1	U	
7440-02-0	NICKEL	1	2.1	2.1	U	
7440-09-7	POTASSIUM	1	580	100	JL	
7782-49-2	SELENIUM	1	8.2	0.52		
7440-22-4	SILVER	1	1	1	U	
7440-23-5	SODIUM	1	100	100	U JKL	
7440-28-0	THALLIUM	1	1	1	U	
7440-31-5	TIN	1	5.2	5.2	U	
7440-62-2	VANADIUM	1	22	1		
7440-66-6	ZINC	1	16	2.1	JL	

Data Package ID: it1111160-1

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Total ICP Metals

Method SW6010B

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1111160

Client Name: Weston Solutions, Inc.

ClientProject ID: Section 12 Uranium Mine TO0035110902-111110-0001

Field ID: S12-56-31-111107

Lab ID: 1111160-14

Sample Matrix: SOIL

% Moisture: 4.0

Date Collected: 07-Nov-11

Date Extracted: 17-Nov-11

Date Analyzed: 18-Nov-11

Prep Method: SW3050 Rev B

Prep Batch: IP111117-1

QCBatchID: IP111117-1-3

Run ID: IT111118-2A1

Cleanup: NONE

Basis: Dry Weight

File Name: 111118A.

Sample Aliquot: 1.007G

Final Volume: 100ML

Result Units: MG/KG

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	Reporting Limit	Result Qualifier	EPA Qualifier
7429-90-5	ALUMINUM	1	7200	21		
7440-36-0	ANTIMONY	1	2.1	2.1	JL	
7440-38-2	ARSENIC	1	13	1		
7440-39-3	BARIUM	1	46	10	JL	
7440-41-7	BERYLLIUM	1	0.57	0.52		
7440-43-9	CADMIUM	1	4.9	0.52		
7440-70-2	CALCIUM	1	14000	100		
7440-47-3	CHROMIUM	1	4.7	1		
7440-48-4	COBALT	1	4.3	1		
7440-50-8	COPPER	1	64	1		
7439-89-6	IRON	1	17000	10		
7439-92-1	LEAD	1	490	0.31		
7439-95-4	MAGNESIUM	1	2900	100		
7439-96-5	MANGANESE	1	300	1		
7439-98-7	MOLYBENUM	1	1	1	U	
7440-02-0	NICKEL	1	6.9	2.1		
7440-09-7	POTASSIUM	1	2200	100	JL	
7782-49-2	SELENIUM	1	7.3	0.52		
7440-22-4	SILVER	1	1	1	U	
7440-23-5	SODIUM	1	100	100	# JL	
7440-28-0	THALLIUM	1	1	1	U	
7440-31-5	TIN	1	5.2	5.2	U	
7440-62-2	VANADIUM	1	35	1		
7440-66-6	ZINC	1	780	2.1	JL	

Data Package ID: #1111160-1

Date Printed: Wednesday, November 30, 2011

ALS Environmental -- FC

Page 27 of 30

LIMS Version: 6.543

Total ICP Metals

Method SW6010B

Sample Results

Lab Name: ALS Environmental – FC
 Work Order Number: 1111160
 Client Name: Weston Solutions, Inc.
 ClientProject ID: Section 12 Uranium Mine T00035110902-111110-0001

Field ID: S12-64-31-111107
 Lab ID: 1111160-15

Sample Matrix: SOIL
 % Moisture: 9.1
 Date Collected: 07-Nov-11
 Date Extracted: 17-Nov-11
 Date Analyzed: 18-Nov-11
 Prep Method: SW3050 Rev B

Prep Batch: IP111117-1
 QCBatchID: IP111117-1-3
 Run ID: IT111118-2A1
 Cleanup: NONE
 Basis: Dry Weight
 File Name: 111118A.

Sample Aliquot: 1.009 G
 Final Volume: 100 ML
 Result Units: MG/KG
 Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	Reporting Limit	Result Qualifier	EPA Qualifier
7429-90-5	ALUMINUM	1	16000	22		
7440-36-0	ANTIMONY	1	2.2	2.2	WJL	
7440-38-2	ARSENIC	1	6.1	1.1		
7440-39-3	BARIUM	1	110	11	JK	
7440-41-7	BERYLLIUM	1	0.97	0.54		
7440-43-9	CADMIUM	1	0.54	0.54	U	
7440-70-2	CALCIUM	1	16000	110		
7440-47-3	CHROMIUM	1	11	1.1		
7440-48-4	COBALT	1	7.1	1.1		
7440-50-8	COPPER	1	19	1.1		
7439-89-6	IRON	1	22000	11		
7439-92-1	LEAD	1	29	0.33		
7439-95-4	MAGNESIUM	1	5300	110		
7439-96-5	MANGANESE	1	270	1.1		
7439-98-7	MOLYBDENUM	1	1.1	1.1	U	
7440-02-0	NICKEL	1	14	2.2		
7440-09-7	POTASSIUM	1	4800	110	JK	
7782-49-2	SELENIUM	1	1.2	0.54		
7440-22-4	SILVER	1	1.1	1.1	U	
7440-23-5	SODIUM	1	110	110	WJK	
7440-28-0	THALLIUM	1	1.1	1.1	U	
7440-31-5	TIN	1	5.4	5.4	U	
7440-62-2	VANADIUM	1	23	1.1		
7440-66-6	ZINC	1	68	2.2	JK	

JK
1/25/12

Data Package ID: *it1111160-1*

Total URANIUM

Method SW6020A

Sample Results

Lab Name: ALS Environmental -- FC

Client Name: Weston Solutions, Inc.

Client Project ID: Section 12 Uranium Mine TO0035110902-111110-0001

Work Order Number: 1111160

Final Volume: 100 ml

Reporting Basis: Dry Weight

Matrix: SOIL

Prep Method: SW3050B

Result Units: UG/KG

Client Sample ID	Lab ID	Date Collected	Date Prepared	Date Analyzed	Percent Moisture	Dilution Factor	Result	Reporting Limit	Flag	Sample Aliquot
BKGD-E-31-111107	1111160-2	11/07/2011	11/17/2011	11/18/2011	6.5	10	29000	10		1.02 g
BKGD-N-31-111107	1111160-3	11/07/2011	11/17/2011	11/18/2011	6.6	10	3000	10		1.028 g
BKGD-S-31-111107	1111160-4	11/07/2011	11/17/2011	11/21/2011	6.9	10	2400	11		1.018 g
BKGD-W-31-111107	1111160-5	11/07/2011	11/17/2011	11/21/2011	8.4	10	1900	11		1.004 g
S12-12-31-111107	1111160-6	11/07/2011	11/17/2011	11/21/2011	4.1	100	45000	100		1.014 g
S12-14-31-111107	1111160-7	11/07/2011	11/17/2011	11/21/2011	3.9	100	110000	100		1.038 g
S12-22-31-111107	1111160-8	11/07/2011	11/17/2011	11/21/2011	4.6	100	94000	100		1.004 g
S12-33-31-111107	1111160-9	11/07/2011	11/17/2011	11/21/2011	3.6	200	340000	200		1.03 g
S12-34-31-111107	1111160-10	11/07/2011	11/17/2011	11/21/2011	3.2	200	290000	200		1.036 g
S12-34-32-111107	1111160-11	11/07/2011	11/17/2011	11/21/2011	3.4	200	280000	200		1.024 g
S12-35-31-111107	1111160-12	11/07/2011	11/17/2011	11/21/2011	2.1	1000	700000	1000		1.019 g
S12-52-31-111107	1111160-13	11/07/2011	11/17/2011	11/21/2011	6.4	100	160000	100		1.026 g
S12-56-31-111107	1111160-14	11/07/2011	11/17/2011	11/21/2011	4.0	100	85000	100		1.007 g
S12-64-31-111107	1111160-15	11/07/2011	11/17/2011	11/21/2011	9.1	100	19000	110		1.009 g

Comments:

1. ND or U = Not Detected at or above the client requested detection limit.

Data Package ID: im1111160-1

Handwritten signature and date: 11/30/11

Date Printed: Wednesday, November 30, 2011

ALS Environmental -- FC

Page 1 of 2

LIMS Version: 6.543

Total Recoverable URANIUM

Method SW6020A

Sample Results

Lab Name: ALS Environmental -- FC

Client Name: Weston Solutions, Inc.

Client Project ID: Section 12 Uranium Mine TO0035110902-111110-0001

Work Order Number: 1111160

Final Volume: 50 g

Reporting Basis: As Received

Matrix: WATER

Prep Method: SW3005A

Result Units: UG/L

Client Sample ID	Lab ID	Date Collected	Date Prepared	Date Analyzed	Percent Moisture	Dilution Factor	Result	Reporting Limit	Flag	Sample Aliquot
ALSW-01-111107	1111160-1	11/07/2011	11/16/2011	11/18/2011	N/A	10	51	0.1	JL	50 g

Comments:

1. ND or U = Not Detected at or above the client requested detection limit.

Data Package ID: *im1111160-1*

Date Printed: Wednesday, November 30, 2011

ALS Environmental -- FC

Page 2 of 2

LIMS Version: 6.543

Total MERCURY

Method SW7471A

Sample Results

Lab Name: ALS Environmental -- FC

Client Name: Weston Solutions, Inc.

Client Project ID: Section 12 Uranium Mine TO0035110902-111110-0001

Work Order Number: 1111160

Final Volume: 100 g

Reporting Basis: Dry Weight

Matrix: SOIL

Prep Method: METHOD

Result Units: MG/KG

Client Sample ID	Lab ID	Date Collected	Date Prepared	Date Analyzed	Percent Moisture	Dilution Factor	Result	Reporting Limit	Flag	Sample Aliquot
BKGD-E-31-111107	1111160-2	11/07/2011	11/18/2011	11/22/2011	6.5	1	0.035	0.035	U	0.609 g
BKGD-N-31-111107	1111160-3	11/07/2011	11/18/2011	11/22/2011	6.6	1	0.035	0.035	U	0.612 g
BKGD-S-31-111107	1111160-4	11/07/2011	11/18/2011	11/22/2011	6.9	1	0.036	0.036	U	0.605 g
BKGD-W-31-111107	1111160-5	11/07/2011	11/18/2011	11/22/2011	8.4	1	0.036	0.036	U	0.613 g
S12-12-31-111107	1111160-6	11/07/2011	11/18/2011	11/22/2011	4.1	1	0.035	0.034		0.614 g
S12-14-31-111107	1111160-7	11/07/2011	11/18/2011	11/22/2011	3.9	1	0.077	0.034		0.61 g
S12-22-31-111107	1111160-8	11/07/2011	11/18/2011	11/22/2011	4.6	1	0.078	0.034		0.61 g
S12-33-31-111107	1111160-9	11/07/2011	11/18/2011	11/22/2011	3.6	1	0.072	0.034		0.611 g
S12-34-31-111107	1111160-10	11/07/2011	11/18/2011	11/22/2011	3.2	1	0.091	0.034		0.606 g
S12-34-32-111107	1111160-11	11/07/2011	11/18/2011	11/22/2011	3.4	1	0.097	0.034		0.602 g
S12-35-31-111107	1111160-12	11/07/2011	11/18/2011	11/22/2011	2.1	1	0.077	0.033		0.615 g
S12-52-31-111107	1111160-13	11/07/2011	11/18/2011	11/22/2011	6.4	1	0.054	0.035		0.611 g
S12-56-31-111107	1111160-14	11/07/2011	11/18/2011	11/22/2011	4.0	1	0.15	0.034		0.614 g
S12-64-31-111107	1111160-15	11/07/2011	11/18/2011	11/22/2011	9.1	1	0.036	0.036	U	0.603 g

Comments:

1. ND or U = Not Detected at or above the client requested detection limit.

ES 1/25/12

Data Package ID: hg1111160-1

Total MERCURY

Method SW7470A

Sample Results

Lab Name: ALS Environmental -- FC

Client Name: Weston Solutions, Inc.

Client Project ID: Section 12 Uranium Mine TO0035110902-111110-0001

Work Order Number: 1111160

Final Volume: 20 g

Reporting Basis: As Received

Matrix: WATER

Prep Method: METHOD

Result Units: MG/L

Client Sample ID	Lab ID	Date Collected	Date Prepared	Date Analyzed	Percent Moisture	Dilution Factor	Result	Reporting Limit	Flag	Sample Allotment
ALSW-01-111107	1111160-1	11/07/2011	11/15/2011	11/17/2011	N/A	1	0.0002	0.0002	✓	20 g

VJL

Comments:

1. ND or U = Not Detected at or above the client requested detection limit.

[Handwritten signature]
1/25/12

Data Package ID: hg1111160-1

APPENDIX F

REFERENCE DOCUMENTATION



BILL RICHARDSON
Governor
DIANE DENISH
Lieutenant Governor

NEW MEXICO
ENVIRONMENT DEPARTMENT

Ground Water Quality Bureau

Harold Runnels Building
1190 St. Francis Drive, P.O. Box 5469
Santa Fe, NM 87502-5469
Phone (505) 827-2900 Fax (505) 827-2965
www.nmenv.state.nm.us



RON CURRY
Secretary
SARAH COTTRELL
Deputy Secretary

Memorandum

To: LaDonna Turner, Site Assessment Manager
Technical and Enforcement Branch
U.S. Environmental Protection Agency, Region 6

From: Dana Bahar, Manager, Superfund Oversight Section
Ground Water Quality Bureau, New Mexico Environment
Department

Date: October 8, 2010

Subject: Pre-CERCLIS Screening Assessment of the Section 12 Mine
(Grants Mining District), McKinley County, New Mexico:
Further action under CERCLA recommended

Site name	Section 12	Alternative names	Dysart Group, Tana and Alto
Street address	not applicable	City	not applicable
Zip code	not applicable	State	New Mexico
Latitude	35.45263	County	McKinley
Longitude	-107.87289	TRS	T14N, R10W, Sec. 12 SW/SE

Site physical description:

The Section 12 Mine ("Site") is located approximately 8.5 miles northwest of the junction of State highways 509 and 605 (Ref. 1). The Site is located in the Ambrosia Lake 7.5 minute USGS 1:24000 scale topographic map quadrangle at latitude 35.45263, longitude 107.87289, and elevation approximately 7,080 ft above sea level. The total area of the Site is estimated to be 47 acres, but the area visibly disturbed from activities is approximately 10 or more acres (Ref. 2).

Access to the Site is required by permission from the mineral rights permittee, Mr. George Lotspeich, president of Southwest Resources, Inc. of Albuquerque, New Mexico. Figure 1 is a location map and Figure 2 is a site features map. Figures 1 and 2 are contained in Attachment A.

The Section 12 Mine is located approximately 7,000 ft east of the Dysart Mine No. 1 site along the northern side of the ephemeral drainage named Martin Draw (Ref. 3 and Ref. 1). Martin Draw extends southeastward to join Arroyo del Puerto near the northwest end of the Rio Algom Mill Site. The Arroyo del Puerto continues southeastward until it joins San Mateo Creek below the Highway 509-605 junction. Section 12 Mine is located directly adjacent to the original Ambrosia Lake surface water body for which the area and topographic map are named. The presence and size of the lake varies depending on precipitation and time of year.

There is a 30-foot high hoist frame structure with a large sheet metal hopper above the sealed mine shaft. The mine shaft is covered with wooden timbers and concrete sections. The hoist control shack is also present. The one story mine office building is located to the northeast of the shaft, and it is approximately 100 feet (ft) long X 40 ft wide. An equipment yard is located on the north side of the office building that is approximately 177 ft long X 177 ft wide. A shop building is located south of the main shaft and it is approximately 80 ft long X 20 ft wide. No pits or open cuts were found at the Site. The area contains noticeable waste rock piles that are over 100 feet long and several feet high. Photographs 1-6 from July 29, 2010 site visit are contained in Attachment B. Currently, underground access to the Section 12 mine is through the Section 11 (Dysart #2) mine shaft which is an air shaft for Section 12. Another air shaft structure and pipe is located approximately 400 ft NNW of the main shaft. There are two other vent shafts on the property. The Section 12 main shaft is approximately 700 ft deep.

Site identification:

The Site is one of numerous legacy uranium sites within the Grants Mining District, Ambrosia Lake Subdistrict, San Mateo Creek watershed, Bluewater Underground Basin.

Site summary:

Information on the current site physical description is limited and summarized from a brief site reconnaissance visit on July 29, 2010 conducted as part of a New Mexico Energy, Minerals and Natural Resource Department, Mining and Minerals Division (MMD) Mining Act Reclamation Program permit application inspection. NMED accompanied current mineral rights permittee, George Lotspeich; and representatives from MMD and Neutron Energy, a uranium mining company, to the Site. A Ludlum model 14C ratemeter and Ludlum model 44-2 gamma scintillator were used to record readings of radioactivity at the Site. The model 44-2 is a very sensitive probe that reads in counts per minute (cpm). The readings were uncollimated (non-shielded) so the readings represent radioactivity striking the detector from more than one preferred angle which would be perpendicular to the detector face.

Background readings for the Section 12 area are generally less than 5,000 cpm and more commonly about 3,000 cpm. The gamma readings for the Site ranged from a low of 7,000 cpm (40 μ R/hr) at the surface of the concrete side walk on the west side of the office building to a high of 100,000 cpm (571 μ R/hr) at the surface and 80,000 cpm (456 μ R/hr) at 4 ft over by some waste rock on the east side of the north trending main access road. Waste rock piles averaged about 40,000 cpm (228 μ R/hr).

Targets:

The Site is located directly adjacent to the east side of the Martin Draw channel (Ref. 1). Martin Draw eventually joins the Arroyo del Puerto. Distance to the Site from the end of Highway 509 is approximately 1.5 miles. A standing body of shallow water approximately 4 acres in size and located adjacent to the northwest side of the main shaft is believed to be from recent precipitation-surface runoff. This standing body of water is also the feature known as "Ambrosia Lake" (Ref. 1). The Site has the potential to supply surface sediment or soil to Martin Draw and Arroyo del Puerto during high precipitation runoff events. Arroyo del Puerto eventually joins San Mateo Creek south of the Highway 509-605 junction. The Site is accessible by range cattle and animals, but human trespassers and inadvertent intruders would have to pass through or over locked gates to get on the Site. The hoist frame structure and various pieces of equipment could present physical hazards to humans.

Well records for the New Mexico Office of the State engineer that are located within a four-mile radius of the Site are show in Table 1 (Ref. 4).

Site ownership and Potential Responsible Parties:

The history of site ownership and potentially responsible parties for the Site includes the following. In 1961 Anderson Development Company, of Albuquerque, operated the Site. From 1962 to 1963 Stella Dysart, of Albuquerque, owned and operated the Site. In early 1977 Hydro Nuclear Corporation operated the Site. From July 1977 to July 1978 Cobb Nuclear Corporation, of Albuquerque, owned the site and subcontracted operations to Nuclear Power and Energy, of Grants. Cobb Nuclear operated the site from August 1977 to August 1979. From August 1979 to April 1980 Cobb Nuclear contracted with Koppen Mining and Construction Corporation, of Albuquerque, to operate the site. In 1980 United Nuclear Corporation also operated the Site. Cobb Nuclear operated the site from April 1980 to August 1981. From late 1981 to 1983 Cobb Resources Corporation, of Albuquerque, operated the site. There was no mineral production in 1983. Southwest Resources, Inc. submitted a mine permit application to the New Mexico Energy, Minerals, and Natural Resources Department, Mining and Minerals Division for the Site. Neutron Energy is interested in the Site as of summer 2010. The Bureau of Land Management is the surface land manager for the Site. Southwest Resources, Inc. is listed as the owner of mineral rights (Ref. 5 and 6).

File review:

Files and information sources that were reviewed for this assessment are listed below.

Site reconnaissance:

An abbreviated Abandoned Uranium Mine (AUM) site assessment and Mining Act pre-permitting inspection was conducted by the Mining and Minerals Division on July 29, 2010.

Recommendation:

Additional investigation of the Site under CERCLA authority is recommended to assess any physical hazards as well as the areal extent of elevated radioactivity readings noted in the most recent Site reconnaissance to determine if threats to human health and the environment exist. NMED also recommends assessment of sediments in surface water drainages originating or crossing this Site to evaluate the potential occurrence of impacts from dispersal of waste materials that have been left on-Site.

Currently, the existence of regional impacts from legacy uranium sites to the ground water system has not been determined. Ground water impacts from "dry" mines such as this Site initially would impact the alluvial ground water system through leaching of on-site waste materials and ore stockpiles. Such impacts, if they exist, predominantly may be localized to alluvial ground water in the vicinity of the Site from leaching prior to Site reclamation. Alternatively ground water impacts may be more widespread, contributing to the overall potential degradation of the alluvial ground water regionally, as well as potentially to impacts to ground water in underlying bedrock aquifers. A generalized investigation of potential alluvial ground water impacts from "dry" former uranium mines within the Grants Mining District is recommended as part of regional ground water quality characterization. Depending upon the results of this investigation, additional site-specific alluvial ground water characterization might be considered.

References:

1. USGS, 1957. Ambrosia Lake, N, Mex. 7.5 minute quadrangle topographic map, 1:24,000 scale.
2. Natural Resource Conservation Service, Web Soil Survey website: <http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>, accessed 8/10/2010.
3. New Mexico Environment Department, GWQB, SOS, Memorandum-Draft 8/4/2010 to LaDonna Turner EPA Region 6: Pre-CERCLIS Screening Assessment of the Dysart #2 mine, 8 pp.
4. New Mexico Office of the State Engineer. "May_06_wells." Shapefile.
5. New Mexico Energy, Mineral and Natural Resources Department, undated. "2007-07-20 to NMED-GWQ-Sfund.xls." Spreadsheet excerpt.
6. USGS, 1957. Ambrosia Lake
McLemore, Virginia T. and William L. Chenoweth, revised December 1991. "Uranium mines and deposits in the Grants district, Cibola and McKinley counties, New Mexico." New Mexico Bureau of Mines and Mineral Resources Open-file report 353.

Attachment A

Figures 1 and 2

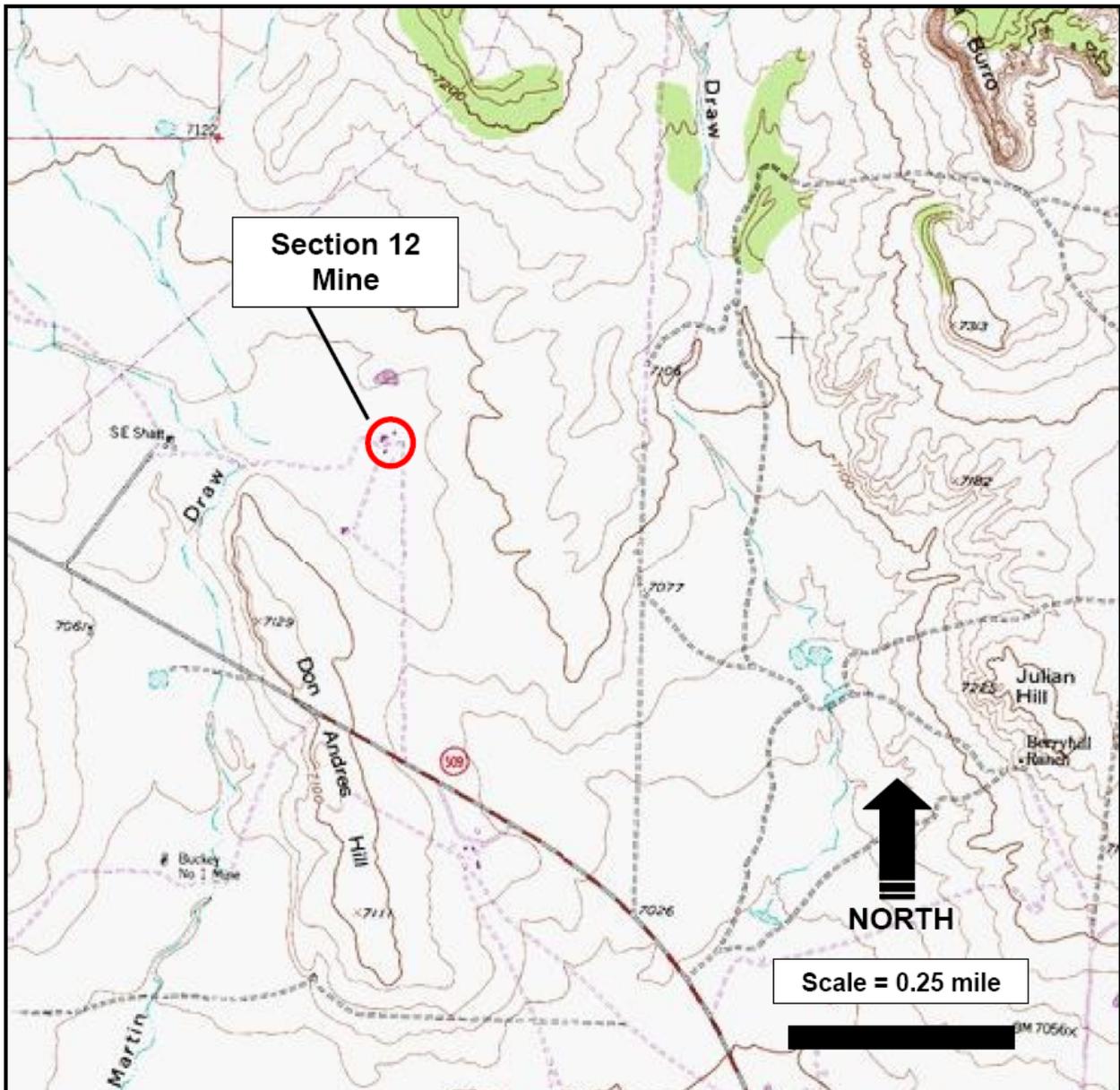


Figure 1. TopoQuest.com location map of the Section 12 Mine in the Ambrosia Lake Quadrangle USGS 7.5 topographic map, T14N, R10W, Sec 12, Ambrosia Lake Subdistrict, Grants, NM.

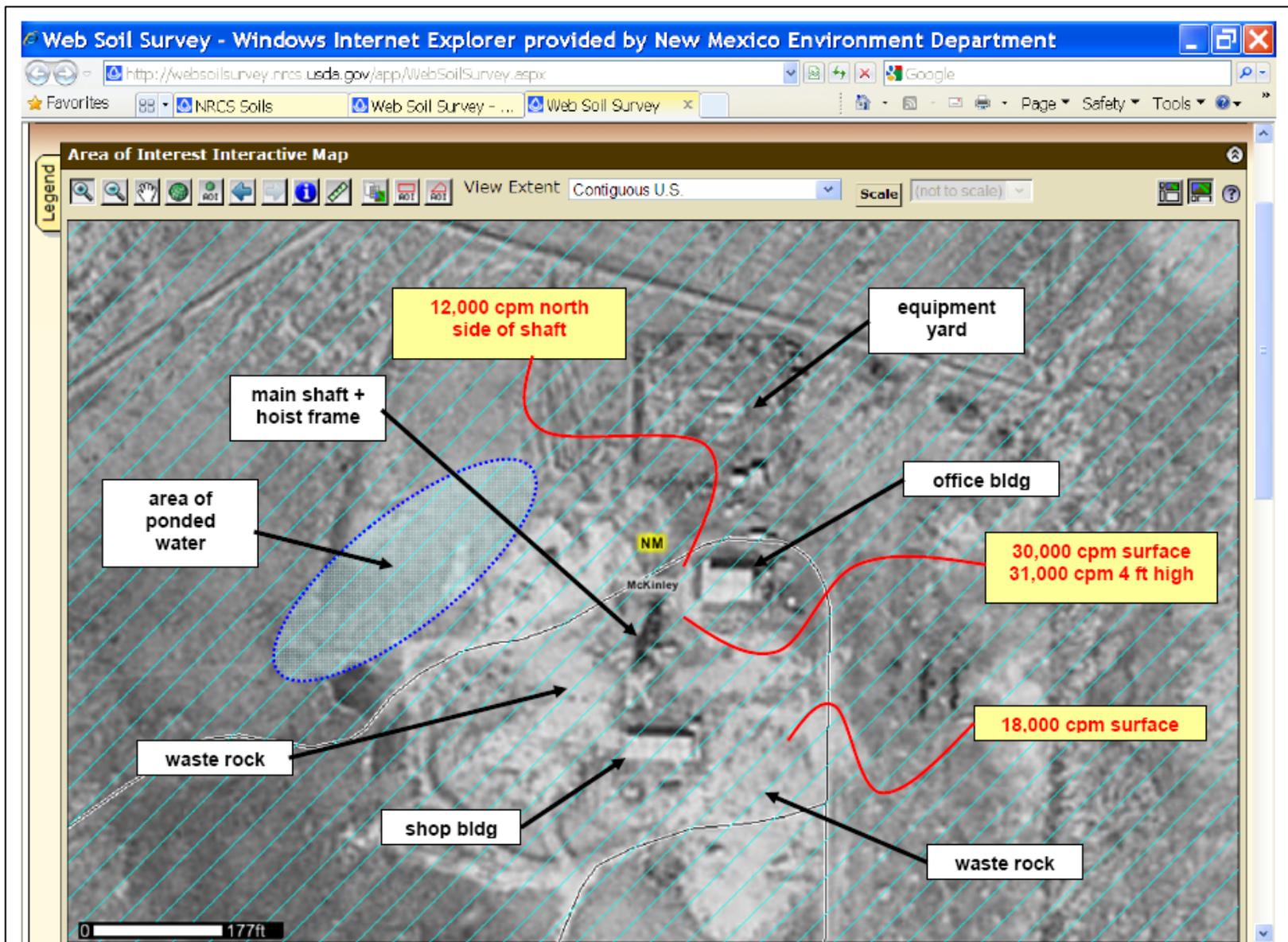


Figure 2. Aerial photographic map (10/9/97) of the Section 12 Mine Site and features observed on the 7/29/2010 field reconnaissance visit, Ambrosia Lake Subdistrict, New Mexico from the Natural Resource Conservation Service website for soil survey information; <http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>, accessed 8/10/2010.

Attachment B

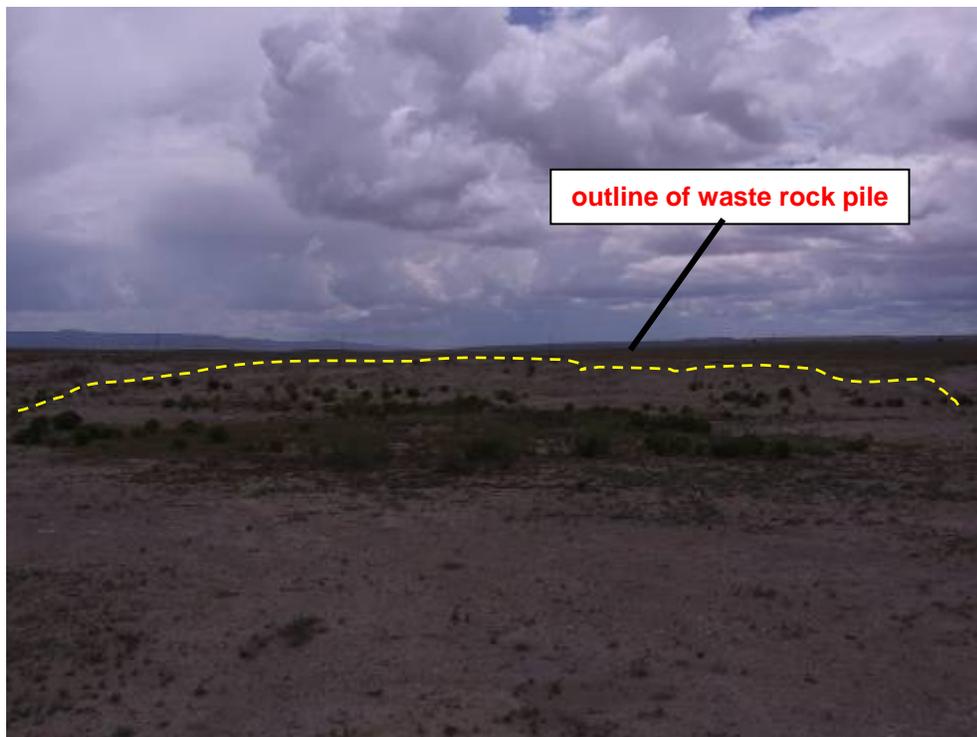
Photo Log from July 29, 2010



Photographs Section 12 Mine: No. 1, main shaft and hoist structure (view from east looking west) and No. 2, main shaft with lower part of hoist visible (view from north looking south).



Photographs Section 12 Mine: No. 3, office building (view from waste pile looking east) and No. 4, shop building (view looking south).



Photographs of Section 12 Mine: No. 5, ponded surface water on west side of Site (aka Ambrosia Lake) and No. 6, waste rock pile on south side of Site.

APPENDIX G

TDD NO. TO-0035-11-09-02 AND AMENDMENTS A-B

Assessment/Inspection Activities -
Enforcement Funds (0035)
Weston Solutions, Inc.

! = required field Moved To EAS

Note: Remaining Amount
includes \$0.00 in Reserve.

TDD Name: Section 12 Uranium Mine ORS		! Period: Base Period	
! Purpose: Work Assignment Initiation			
! Priority: High		! Start Date: 09/30/2011	
Overtime: No		! Completion Date: 06/29/2012	
! Funding Category: Removal		Invoice Unit:	
! Project/Site Name: Section 12 Uranium Mine ORS		WorkArea: ASSESSMENT/INSPECTIONS ACTIVITIES	
Project Address:		Activity: Expanded Site Inspections/Remedial Investigation (ESI/RI)	
County: McKinley		Work Area Code:	
City, State: , NM		Activity Code:	
Zip:		EMERGENCY CODE: <input type="checkbox"/> KAT <input type="checkbox"/> RIT	
! SSID: A6CE		FPN:	
CERCLIS: NMN000607185		Performance Based: No	
Operable Unit:			
Authorized TDD Ceiling:	Cost/Fee	LOE (Hours)	
Previous Action(s):	\$0.00	0.0	
This Action:	\$26,661.00	0.0	
New Total:	\$26,661.00	0.0	

Specific Elements

Description of Work:

All activities performed in support of this TDD shall be in accordance with the contract and TO PWS.

The Grants Mining District provided significant uranium extraction and production in New Mexico from the 1950s until late into the 20th century. There are three mining sub-districts within the Grants Mining District: Ambrosia Lake, Laguna, and Marquez. Land ownership within these sub-districts consists of public, tribal and private property. These mining sub-districts contain 97 former legacy uranium mines and five mill sites. The EPA is currently assessing the mine sites for releases that may have impacted soil, surface water and groundwater. Under this TDD, the contractor shall investigate mine water discharge locations, sample potentially impacted soil for elevated concentrations of elemental uranium and radionuclides, sample any surface water present for metals and radionuclides, and sample any accessible groundwater wells in the immediate area of the Section 12 mine site in the Ambrosia Lake sub-district. The contractor shall document mine site features (e.g. open mine portals, waste rock piles, mine operation-related structures, etc.) and sample locations with photographs, descriptions, and geospatially. A draft and final report shall be written for the mine site. Coordinate with SAM, Lisa Price at price.lisa@epa.gov or 214-665-6744, upon receipt of the TDD.

Accounting and Appropriation Information

SFO: 22

Line	DCN	IFMS	Budget/ FY	Appropriati on Code	Budget Org Code	Program Element	Object Class	Site Project	Cost Org Code	Amount
1	ENC035	XXX	11	TCD	06S	302EC7C	2505	A6CERP00	C001	\$26,661.00

Funding Summary:	Funding
Previous:	\$0.00
This Action:	\$26,661.00
Total:	\$26,661.00

Funding Category
Removal

Section

- Signed by Lisa Price/R6/USEPA/US on 09/22/2011 08:11:34 AM, according to Jeff Criner/start6/rfw-sta
: Lisa Price Date: 09/22/2011

Phone #:

Project Officer Section - Signed by Cora Stanley/R6/USEPA/US on 09/28/2011 04:45:32 PM, according to Jef
Project Officer: Linda Carter **Date:** 09/28/2011

Contracting Officer Section - Signed by Cora Stanley/R6/USEPA/US on 09/28/2011 04:45:32 PM, according t
Contracting Officer: Cora Stanley **Date:** 09/28/2011

Contractor Section - Signed by Robert Beck/start6/rfw-start/us on 09/29/2011 09:36:05 AM, according to /

- No During the past three (3) calendar years has your company , or any of your employees that will
 Yes be working at this site , previously performed work at this site /facility?

Contractor Contact: Robert Beck

Date: 09/29/2011

! = required field Moved To EAS

TDD Name: Section 12 Uranium Mine ORS		! Period: Base Period	
! Purpose: Set/Revise Expenditure Limit			
! Priority: High		! Start Date: 09/30/2011	
Overtime: Yes		! Completion Date: 06/29/2012	
! Funding Category: Removal		Invoice Unit:	
! Project/Site Name: Section 12 Uranium Mine ORS		WorkArea: ASSESSMENT/INSPECTIONS ACTIVITIES	
Project Address:		Activity: Expanded Site Inspections/Remedial Investigation (ESI/RI)	
County: McKinley		Work Area Code:	
City, State: , NM		Activity Code:	
Zip:		EMERGENCY CODE: <input type="checkbox"/> KAT <input type="checkbox"/> RIT	
! SSID: A6CE		FPN:	
CERCLIS: NMN000607185		Performance Based: No	
Operable Unit:			
Authorized TDD Ceiling:		Cost/Fee	LOE (Hours)
Previous Action(s):		\$26,661.00	0.0
This Action:		\$5,000.00	0.0
New Total:		\$31,661.00	0.0

Specific Elements

Description of Work:

All activities performed in support of this TDD shall be in accordance with the contract and TO PWS.

Amendment A increases the dollar amount for the TDD by \$5000; the additional dollars are from a funding sweep of the Section 32 TDD. The new total funding is \$31,661. The Grants Mining District provided significant uranium extraction and production in New Mexico from the 1950s until late into the 20th century. There are three mining sub-districts within the Grants Mining District: Ambrosia Lake, Laguna, and Marquez. Land ownership within these sub-districts consists of public, tribal and private property. These mining sub-districts contain 97 former legacy uranium mines and five mill sites. The EPA is currently assessing the mine sites for releases that may have impacted soil, surface water and groundwater. Under this TDD, the contractor shall investigate mine water discharge locations, sample potentially impacted soil for elevated concentrations of elemental uranium and radionuclides, sample any surface water present for metals and radionuclides, and sample any accessible groundwater wells in the immediate area of the Section 12 mine site in the Ambrosia Lake sub-district. The contractor shall document mine site features (e.g. open mine portals, waste rock piles, mine operation-related structures, etc.) and sample locations with photographs, descriptions, and geospatially. A draft and final report shall be written for the mine site. Coordinate with SAM, Lisa Price at price.lisa@epa.gov or 214-665-6744, upon receipt of the TDD.

Accounting and Appropriation Information

Line	DCN	IFMS	Budget/ FY	Appropriati on Code	Budget Org Code	Program Element	Object Class	Site Project	Cost Org Code	Amount
1	ENC035	XXX	11	TCD	06S	302EC7C	2505	A6CE0000	C001	\$5,000.00

Funding Summary:		Funding
Previous:		\$26,661.00
This Action:		\$5,000.00
Total:		\$31,661.00

Funding Category

Removal

Section

- Signed by Lisa Price/R6/USEPA/US on 12/12/2011 02:11:48 PM, according to Cheng Wei Feng/start

: Lisa Price

Date: 12/12/2011

Phone #:

Project Officer Section - Signed by Linda Carter/R6/USEPA/US on 12/15/2011 07:55:49 AM, according to C

Project Officer: Linda Carter**Date:** 12/14/2011

Contracting Officer Section - Signed by Cora Stanley/R6/USEPA/US on 12/14/2011 03:15:42 PM, according

Contracting Officer: Cora Stanley**Date:** 12/14/2011**Contractor Section****Contractor Contact:****Date:**

! = required field Moved To EAS

TDD Name: Section 12 Uranium Mine ORS		! Period: Base Period	
! Purpose: Set/Revise Expenditure Limit			
! Priority: High		! Start Date: 09/30/2011	
Overtime: Yes		! Completion Date: 06/29/2012	
! Funding Category: Removal		Invoice Unit:	
! Project/Site Name: Section 12 Uranium Mine ORS		WorkArea: ASSESSMENT/INSPECTIONS ACTIVITIES	
Project Address:		Activity: Expanded Site Inspections/Remedial Investigation (ESI/RI)	
County: McKinley		Work Area Code:	
City, State: , NM		Activity Code:	
Zip:		EMERGENCY CODE: <input type="checkbox"/> KAT <input type="checkbox"/> RIT	
! SSID: A6CE		FPN:	
CERCLIS: NMN000607185		Performance Based: No	
Operable Unit:			
Authorized TDD Ceiling:		Cost/Fee	LOE (Hours)
Previous Action(s):		\$31,661.00	0.0
This Action:		\$3,000.00	0.0
New Total:		\$34,661.00	0.0

Specific Elements

Description of Work:

All activities performed in support of this TDD shall be in accordance with the contract and TO PWS.

Amendment B increases the dollar amount for the TDD by \$3000; the additional dollars are from funding originally for the Ann Lee TDD. The total funding is \$34,661.

Amendment A increases the dollar amount for the TDD by \$5000; the additional dollars are from a funding sweep of the Section 32 TDD. The new total funding is \$31,661. The Grants Mining District provided significant uranium extraction and production in New Mexico from the 1950s until late into the 20th century. There are three mining sub-districts within the Grants Mining District: Ambrosia Lake, Laguna, and Marquez. Land ownership within these sub-districts consists of public, tribal and private property. These mining sub-districts contain 97 former legacy uranium mines and five mill sites. The EPA is currently assessing the mine sites for releases that may have impacted soil, surface water and groundwater. Under this TDD, the contractor shall investigate mine water discharge locations, sample potentially impacted soil for elevated concentrations of elemental uranium and radionuclides, sample any surface water present for metals and radionuclides, and sample any accessible groundwater wells in the immediate area of the Section 12 mine site in the Ambrosia Lake sub-district. The contractor shall document mine site features (e.g. open mine portals, waste rock piles, mine operation-related structures, etc.) and sample locations with photographs, descriptions, and geospatially. A draft and final

report shall be written for the mine site. Coordinate with SAM, Lisa Price at price.lisa@epa.gov or 214-665-6744, upon receipt of the TDD.

Accounting and Appropriation Information

SFO: 22

Line	DCN	IFMS	Budget/ FY	Appropriation Code	Budget Org Code	Program Element	Object Class	Site Project	Cost Org Code	Amount
1	ENC012	XXX	11	T	06S	302EC7C	2505	A6CE??00	C001	\$3,000.00

Funding Summary:		Funding
Previous:		\$31,661.00
This Action:		\$3,000.00
Total:		\$34,661.00

Funding Category

Removal
Enforcement

Section

- Signed by Lisa Price/R6/USEPA/US on 02/28/2012 03:49:24 PM, according to Cheng Wei Feng/start

: Lisa Price

Date: 02/28/2012

Phone #:

Project Officer Section - Signed by Cora Stanley/R6/USEPA/US on 03/02/2012 10:12:23 AM, according to C

Project Officer: Linda Carter

Date: 03/02/2012

Contracting Officer Section - Signed by Cora Stanley/R6/USEPA/US on 03/02/2012 10:12:23 AM, according

Contracting Officer: Cora Stanley

Date: 03/02/2012

Contractor Section

Contractor Contact:

Date: